

Welcome to your CDP Water Security Questionnaire 2020

W0. Introduction

W0.1

(W0.1) Give a general description of and introduction to your organization.

Philip Morris International Inc. (PMI) is a leading international tobacco company. PMI has its executive headquarters in New York, US, has its primary listing on the New York Stock Exchange (NYSE: PM), and has its Operations Center in Lausanne, Switzerland.

PMI manufactures and sells cigarettes, smoke-free products and associated electronic devices and accessories, and other nicotine-containing products in markets outside of the U.S. We have a wide range of cigarette brands, including the world's best-selling international cigarette Marlboro. Our smoke-free product portfolio includes heat-not-burn and nicotine-containing vapor products. In 2019, PMI net revenues amounted to \$ 29.8 billion excluding excise taxes on products worth \$50.2 billion, on a like-for-like basis; 18.7% of PMI's net revenues in 2019 related to the sale of smoke-free products. PMI's 2019 total shipment volume for cigarette and heated tobacco units was 766.4 billion (706.7 billion cigarettes and 59.7 billion heated tobacco units).

We are building our future on smoke-free products that are a much better consumer choice than continuing to smoke cigarettes. Our vision is that these products ultimately replace cigarettes to the benefit of adult smokers, society, our company and our shareholders. This ambition is at the very core of our corporate strategy and sits atop our sustainability priorities. For PMI, sustainability means creating long term value while minimizing the negative externalities associated with our products, operations and value chain. We are committed to address the impact on the communities and the environment across our value chain. We have a global footprint: as of December 31, 2019, PMI had a workforce of around 73,500 people worldwide and operated 38 production facilities globally. In 2019, our tobacco was sourced from over 335,000 contracted farmers across 24 countries, and our products were sold in over 180 markets.

To help us prioritize our focus and resources in areas where we can have the greatest impact, we refreshed our sustainability materiality analysis in 2019. Climate protection, littering prevention and product eco-design and circularity are tier 1 environmental topics that are prioritized in our sustainability strategy.

Engagement beyond our own operations is key, as this is where the most significant sustainability impacts occur, especially when it comes to climate change and carbon emissions.

Our business has a significant, global supply chain organized by five main categories:

1. Agricultural products: ranging from tobacco growers to producers of other agricultural products, such as clove, menthol and guar gum.
2. Direct materials used to produce cigarettes and other tobacco products, such as acetate tow (for cigarette filters) and paper (both cigarette paper and for packaging materials).

- 3. Machines for our cigarette and heated tobacco products factories, a highly specialized industry.
- 4. Electronic devices for heated tobacco and vapor products.
- 5. Goods and services that are not specific to the tobacco business, but essential for any business, such as office equipment etc.

As a responsible business, we want to understand and continuously address potential sustainability issues in our global supply chain. We are working with business partners to proactively identify, manage, and reduce risks, and create shared value.

The description above is a summary and is qualified in its entirety by reference to the full text of PMI's Annual Report on Form 10-K for the year ended 2019 filed with the U.S. Securities and Exchange Commission, and the full text of PMI's Integrated Report 2019

Remarks for this disclosure:

- In this submission, "PMI," "we," "us" and "our" refer to Philip Morris International Inc. and its subsidiaries;
- In this submission, we reference information reported in the 2020 Proxy Statement dated March 26th, 2020; 10-K filed February 7th, 2020 with the SEC; and PMI's Integrated Report 2019;
- Trademarks and service marks in this submission are the registered property of, or licensed by, the subsidiaries of Philip Morris International Inc;
- Expectations, aspirational targets and goals set forth in this submission do not constitute financial projections;
- Smoke-Free Products or Reduced-Risk Products (RRPs) - the terms PMI uses to refer to products that present, are likely to present, or have the potential to present less risk of harm to smokers who switch to these products versus continued smoking. PMI has a range of RRP's in various stages of development, scientific assessment and commercialization;
- Materiality: In this submission and in related communications, the terms "materiality," "material" and similar terms, when used in the context of economic, environmental, and social topics, are defined in the referenced sustainability standards, and are not meant to correspond to the concept of materiality under the U.S. securities laws and/or disclosures required by the US Securities and Exchange Commission.

W-FB0.1a

(W-FB0.1a) Which activities in the food, beverage, and tobacco sector does your organization engage in?

- Processing/Manufacturing
- Distribution

W0.2

(W0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date
Reporting year	January 1, 2019	December 31, 2019

W0.3

(W0.3) Select the countries/areas for which you will be supplying data.

Argentina
Brazil
Canada
China
Colombia
Costa Rica
Czechia
Dominican Republic
Ecuador
Germany
Greece
India
Indonesia
Italy
Jordan
Kazakhstan
Lebanon
Lithuania
Malawi
Malaysia
Mexico
Mozambique
Netherlands
North Macedonia
Pakistan
Philippines
Poland
Portugal
Republic of Korea
Romania
Russian Federation
Senegal
Serbia
South Africa
Spain
Switzerland
Turkey
Ukraine
United States of America
Venezuela (Bolivarian Republic of)

W0.4

(W0.4) Select the currency used for all financial information disclosed throughout your response.

USD

W0.5

(W0.5) Select the option that best describes the reporting boundary for companies, entities, or groups for which water impacts on your business are being reported.

Companies, entities or groups over which operational control is exercised

W0.6

(W0.6) Within this boundary, are there any geographies, facilities, water aspects, or other exclusions from your disclosure?

Yes

W0.6a

(W0.6a) Please report the exclusions.

Exclusion	Please explain
Offices and some minor facilities.	We have excluded offices and minor activities/facilities such as finished goods warehouses for which our water footprint is marginal. These exclusions are not significant to this disclosure as we estimate that all the sites together represent less than 2% of our overall blue water usage based on a water footprint screening performed in collaboration with an external consultant.

W1. Current state

W1.1

(W1.1) Rate the importance (current and future) of water quality and water quantity to the success of your business.

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Important	Important	According to a study we conducted in 2017-2018, our agricultural supply chain, our other direct materials supply chain and our manufacturing represent respectively 53%, 41% and 6% of our water footprint (offices and finished goods warehouses excluded). As PMI relies on the availability of sufficient good quality freshwater for

			<p>the production of its raw materials, and the manufacturing of its products, we have chosen an importance rating of “important” both for direct and indirect operations.</p> <p>Indirect: Water is used in PMI's supply chain to grow raw materials. PMI's most critical suppliers in terms of water risks are tobacco growers, paper and cellulose acetate based material suppliers. More than half of our purchased tobacco crops are rainfed, the rest require irrigation. PMI expects its indirect dependency on water to decrease in the future. This will be achieved through collaborations with our suppliers to promote our Good Agricultural Practices (GAP) and Responsible Sourcing Principles (RSP) programs to optimize the use of freshwater resources.</p> <p>Direct: At our manufacturing sites, high quality freshwater is used for WASH (Water Access Sanitation and Hygiene) services, landscape watering, and for manufacturing processes including the preparation of flavors, liquid products, in several stages of the tobacco processing, among others. Good quality fresh water is also an ingredient in the manufacturing process of our RRP products which are expected to have an increased importance in PMI's strategy in the future. PMI expects its direct dependency on water to increase in the short to medium term (up to 5 years) , as we are transitioning toward RRP products which are more water-intensive in their manufacturing processes. To reduce water dependency in the long term, PMI is implementing at its manufacturing facilities technologies to recycle and reuse water such as reverse osmosis and electrode ionization, and efficiency initiatives.</p>
<p>Sufficient amounts of recycled, brackish and/or produced water available for use</p>	<p>Important</p>	<p>Important</p>	<p>Direct: The process to manufacture our RRP requires approximately four to five times more water per unit of product than conventional cigarettes. Our efforts are geared towards improving water efficiency throughout the process by implementing technologies to recycle and reuse water, and using rainwater harvesting for landscape watering. We use recycled water for</p>

			<p>example in processing related to cooling, cooling towers, boilers, equipment cleaning, and also for landscape irrigation. For this reason, we have rated the importance of recycled water as important. At our manufacturing sites, water is recycled in our waste water treatment plants and used for watering gardens, equipment cleaning and for some production processes where technically possible. PMI expects its dependency on recycled water to have a slight increase in the future. This is related to the expected water needs that PMI will face when transitioning to RRP, which are more water intensive.</p> <p>Indirect: tobacco and other direct material suppliers like paper or cellulose acetate use every opportunity to treat and use recycled or brackish water as part of their processes, which might include secondary uses of water such as for cleaning and maintenance of equipment, operation of equipment, and others depending on the local context. Reducing freshwater withdrawn by using recycled water improves our direct and supply chain resilience to water scarcity and increases water availability for surrounding communities, therefore, we have given them a rating of important. Water recycling is gaining importance among our suppliers and we expect this trend to continue increasing in the future. This is linked to increasing water risks faced by This is linked to increasing water risks faced by suppliers, who have to mitigate them through increased efficiency in the use of water resources.</p>
--	--	--	--

W-FB1.1a

(W-FB1.1a) Which water-intensive agricultural commodities that your organization produces and/or sources are the most significant to your business by revenue?

Select up to five.

Agricultural commodities	% of revenue dependent on these agricultural commodities	Produced and/or sourced	Please explain
--------------------------	--	-------------------------	----------------

Tobacco	More than 80%	Sourced	<p>100% of PMI heated tobacco units, cigarettes and other nicotine-containing products require tobacco. We purchase tobacco leaf of various types, grades and styles throughout the world. In 2019 our purchases came from around 335,000 farmers directly contracted either by us or by our third-party leaf suppliers in 24 countries. We contracted farmers directly in several countries, including Argentina, Brazil, Italy, Pakistan, the Philippines and Poland. Some of our main tobacco sourcing countries are Argentina, Brazil, China, Italy, Indonesia (mostly for domestic use in kretek products), Malawi, Mozambique, Philippines, Turkey and the United States.</p> <p>In 2019, PMI continued to assess water risks associated with its value chain, as well as to gather water intensity data from the production of its key commodities such as tobacco.</p>
---------	---------------	---------	--

W1.2

(W1.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	100%	<p>100% of our operational (i.e. factory) sites are monitored for this water aspect and this is considered part of usual facility management for our sites. Flow meters are used as methodology to measure continuously volumes of water withdrawals by source and origin in all our sites. 100% of our factories are assessed against ISO14001 requirements, helping our sites to demonstrate compliance with current and future statutory and regulatory requirements associated with water withdrawals. Monthly water aggregated data from all sites is entered into our EHS data management system, checked quarterly and audited annually by SGS during onsite verification.</p> <p>We have also become a member of the Alliance for Water Stewardship to better understand how to conserve the watersheds where we operate, and six factories have been already certified</p>

		<p>against the AWS Standard by the end of 2019. We have committed to certify at least 11 facilities by 2020 and all facilities by 2025.</p>
Water withdrawals – volumes by source	100%	<p>We monitor 100% of our factories for this water aspect and this is part of usual facility management for our sites. Flow meters are used to measure continuously volumes of water withdrawals by source and origin in all our sites. 100% of our factories are assessed against ISO14001 requirements, helping them to demonstrate compliance with current and future statutory and regulatory requirements associated with water withdrawals. Monthly aggregated water data from all sites is entered into our EHS data management system, checked quarterly and verified by a third party annually.</p> <p>Our water stressed factories have been identified through our recent water risk assessment based on the WRI Aqueduct tool. We have also become a member of the Alliance for Water Stewardship to better understand how to conserve the watersheds where we operate, and 6 factories have been already certified against this Standard. We have committed to certify at least 11 facilities by 2020 and all facilities by 2025.</p>
Water withdrawals quality	100%	<p>In all our factories where water is sourced via the municipal provider, we monitor the quality via the provider's analyses, with the exemption of the RRP factories where we perform additional analyses due to product quality reasons. In all the cases we withdraw water from wells, fresh water sources or in case we store water in water tanks, we monitored closely (up to 3 times a month). We collect up to 30 parameters like hardness, conductivity, metals, suspended solids, Coliforms, pH, salinity, temperature, and chlorine. Most of the analyses are taking place in external accredited laboratories, though we also measure inhouse some parameters like pH).</p> <p>We have also become a member of the Alliance for Water Stewardship to better understand how to conserve the watersheds where we operate,</p>

		and 6 factories have been already certified against this Standard. We have committed to certify at least 11 facilities by 2020 and all facilities by 2025.
Water discharges – total volumes	100%	100% of our operational (i.e. factory) sites are monitored for this water aspect and this is considered part of usual facility management for our sites. PMI uses flow meters to measure continuously discharges volumes in almost half of its sites, and calculates the rest based on consumption values. 100% of our factories are assessed against ISO14001 requirements, helping our sites to demonstrate compliance with current and future statutory and regulatory requirements associated with water discharges. Monthly water aggregated data from all sites is entered into our EHS data management system, checked quarterly and verified by a third party annually. We have also become a member of the Alliance for Water Stewardship to better understand how to conserve the watersheds where we operate, and 6 factories have been already certified against this Standard. We have committed to certify at least 11 facilities by 2020 and all facilities by 2025.
Water discharges – volumes by destination	100%	100% of our operational (i.e. factory) sites are monitored for this water aspect and this is considered part of usual facility management for our sites. PMI uses flow meters to continuously measure discharges and identify volumes by destination in almost half of its sites, and measures the rest based on consumption values. 100% of our factories are assessed against ISO14001 requirements, helping our sites to demonstrate compliance with current and future statutory and regulatory requirements associated with water discharges. Monthly water aggregated data from all sites is entered into our EHS data management system, checked quarterly and verified by a third party annually. We have also become a member of the Alliance for Water Stewardship to better understand how to conserve the watersheds where we operate, and 6 factories have been already certified against this Standard. We have committed to

		certify at least 11 facilities by 2020 and all facilities by 2025.
Water discharges – volumes by treatment method	100%	100% of our operational (i.e. factory) sites are monitored for this water aspect and this is considered part of usual facility management for our sites PMI uses flow meters to continuously measure discharges and identify volumes by destination in almost half of its sites, and calculates the rest based on consumption values. 100% of our factories are assessed against ISO14001 requirements, helping our sites to demonstrate compliance with current and future statutory and regulatory requirements associated with water discharges. Monthly water aggregated data from all sites is entered into our EHS data management system, checked quarterly and verified by a third party annually. We have also become a member of the Alliance for Water Stewardship to better understand how to conserve the watersheds where we operate, and 6 factories have been already certified against this Standard. We have committed to certify at least 11 facilities by 2020 and all facilities by 2025.
Water discharge quality – by standard effluent parameters	100%	100% of our factories are monitored for this water aspect and this is considered part of usual facility management for our sites. We do sampling following recognized sampling protocols and laboratory analysis in internal, but mostly in external accredited labs, to measure standard effluent parameters. 100% of our factories are assessed against ISO14001 requirements, helping our sites to demonstrate compliance with current and future statutory and regulatory requirements associated with water discharges. BOD, COD, pH, temperature and chlorides are some of the parameters typically controlled. The frequency of analyses and the parameters are according to the per local regulatory requirements, and recognized methods. For example, in Italy, in our RRP factory we measure a set of 11 parameters at least once per month. As part of our water strategy, we will progressively increase the number of

		parameters controlled and on-line measurements at all of our sites.
Water discharge quality – temperature	100%	<p>As part of our ISO14001 system, we ensure that the wastewater temperature is adequate to the receptor requirements, and to achieve and monitor this in all our sites we follow the most adequate methods.</p> <p>In the sites where wastewater is treated onsite and discharged in natural receptors like surface or underground water / soil, or in case the local regulatory framework requires, we measure the temperature in the various treatment stages as well as in the final treated wastewater tanks with online or offline thermometers, at least on an annual basis.</p> <p>In the remaining sites, we calculate the effluent temperature based on the process water temperature and volume, and this is in line with the temperatures measured on the sites with installed online meters. We ensure that this parameter is controlled annually.</p> <p>Our process water temperature is the same across our factories and has not changed over the years, and our effluent wastewater temperatures are similar to the civil wastewater.</p>
Water consumption – total volume	100%	<p>100% of our operational (i.e. factory) sites are monitored for this water aspect and this is considered part of usual facility management for our sites. The volume is calculated based on the withdrawal and discharges. 100% of our factories are assessed against ISO14001 requirements, helping our sites to demonstrate compliance with current and future statutory and regulatory requirements associated with water consumption. Monthly water aggregated data from all sites is entered into our EHS data management system, checked quarterly and verified by a third party annually.</p>
Water recycled/reused	100%	<p>100% of our operational (i.e. factory) sites are monitored for this water aspect and this is considered part of usual facility management for our sites. We use flow meters to continuously measure the volumes, at the end of the treatment process in our facilities, prior to being reused. 100% of our factories are assessed</p>

		<p>against ISO14001 requirements, helping our sites to demonstrate compliance with current and future statutory and regulatory requirements associated with water recycle/reuse. Monthly water aggregated data from all sites is entered into our EHS data management system, checked quarterly and verified by a third party annually. Optimizing our osmosis water treatment plants and reusing rejected water are examples of initiatives implemented to reuse water in our factories.</p>
<p>The provision of fully-functioning, safely managed WASH services to all workers</p>	<p>100%</p>	<p>100% of our operational (i.e. factory) sites are monitored for this water aspect and this is considered part of usual facility management for our sites, with measurement being carried out and validated through ISO14001 and OHSAS18001 standard in 100% of the sites. We use global reporting requirements for water data with a central data collection system for all sites. WASH services in all PMI sites is a minimum PMI requirement, it is integrated into our occupational health and safety management system, according to OHSAS standard and it is monitored and controlled through internal, corporate and third-party audits. Each site is being audited against WASH requirements at least annually.</p>

W1.2b

(W1.2b) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, and how do these volumes compare to the previous reporting year?

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	4,009	Lower	<p>In 2019, total withdrawals decreased by 8% vs. 2018. The decrease was due to the water saving and water recycling initiatives despite the incremental production of our reduced risk products (RRP) which require approximately 4 to 5 times more water per unit of product than for conventional cigarettes.</p> <p>In 2019, PMI implemented several initiatives in the frame of its “Drive for Zero” program, which</p>

			<p>aims to reduce process losses, including water use and increase water recovery; these measures helped us achieve a decrease on our average water withdrawals from 5.14 m³ in 2018 to 4.74m³ of water for every million units of product equivalent produced. In the medium term, PMI expects decreases in water withdrawals, as we continue to improve the efficiency of manufacturing process for RRP products and to implement our water recycling and reusing strategy. PMI is expecting RRP demand and production to grow over time, which could lead to long-term slow increments in our water withdrawal volumes. Still, this increased water withdrawal demand is expected to be significantly less due to the implementation of our water management strategy.</p> <p>As an example of our progress, our smoke-free products factory in Bologna, Italy, improved its water efficiency rate by 18 percent in 2019 versus the previous year. Several water-saving initiatives contributed to this, including the purification of 128,000 cubic meters (equivalent to 50 Olympic-size swimming pools) of treated wastewater with reverse osmosis for reuse in cooling processes and steam production. This increase in water efficiency led to reduction in water withdrawals.</p>
Total discharges	2,125	Lower	<p>In 2019, our total discharges decreased by 12% from 2,413 megaliters in 2018. Most of the decrease was due to the new reusing and recycling technologies applied to our new reduced risk product factory (RRP) factories; these measures helped us achieve a decrease on our average water discharges from 2.84 m³ in 2018 to 2.51 m³ of water for every million units of product equivalent produced. The process to manufacture our reduced risk products (RRP) requires approximately 4 to 5 times more water per unit of product than for conventional cigarettes.</p> <p>To mitigate these impacts, our efforts are geared towards improving water efficiency throughout the process by implementing new</p>

			<p>process designs, reusing or recycling water, using rainwater harvesting and improving Waste Treatment Plan efficiency.</p> <p>We expect medium term (1-5 years) decreases in discharge as we continue to improve the efficiency of manufacturing process for RRP products and to implement our water recycling and reusing strategy. PMI is expecting RRP demand and production to grow over time, which could lead to long-term slow increments in our water discharge volumes.</p>
Total consumption	1,884	Lower	<p>In 2019 our total consumption decreased by 4% from 1958 megaliters in 2018. The decrease was due to the water saving and water recycling initiatives despite the incremental production of our reduced risk products (RRP) which require approximately 4 to 5 times more water per unit of product than for conventional cigarettes.</p> <p>In 2019, PMI implemented several initiatives to reduce water use and increase water recovery and also to reduce losses; though this our water consumption decreased from 2.30 m³ in 2018 to 2.23m³ of water for every million units produced. We expect the RRP demand and thus production to grow over time, and we will mitigate these impacts, with our efforts geared towards improving water efficiency throughout the process by implementing new process designs, reusing, recycling water and using rainwater harvesting. In the medium term, PMI expects decreases in water consumption, as we continue to improve the efficiency of the manufacturing process for RRP products and to implement our water recycling and reusing strategy. PMI is expecting RRP demand and production to grow over time, which could lead to long-term slow increments in our water consumption volumes. Still, this increased water consumption demand is expected to be significantly less due to the implementation of our water management strategy.</p>

W1.2d

(W1.2d) Indicate whether water is withdrawn from areas with water stress and provide the proportion.

	Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Identification tool	Please explain
Row 1	Yes	51-75	Higher	WRI Aqueduct	<p>PMI uses the WRI Aqueduct tool to identify factories that are located in geographies facing water stress. The analysis is carried out annually and is focused on those indicators related to physical risks (quality and quantity), future water conditions and WASH, as these risks are the most relevant for PMI's direct operations. Results are used by PMI to monitor the trend of water withdrawals in each geography, and to identify key factories where to implement water efficiency interventions.</p> <p>Using the WRI Aqueduct tool with each factory's GPS coordinates, we were able to detect those sites where the baseline water stress is equal to/greater than high 40 - 80%. Then we calculated the total amount of water withdrawn from those factories vs total withdraws. Based on this study, 54% of our direct factory water withdrawals are from water stressed areas in 2019 vs. 30% in 2018. We perform this study annually to make sure that we maintain our focus on water stressed factories. Water withdrawals increase is due to</p>

				<p>the higher production of our reduced risk products (RRP) which require around 4 to 5 times more water than our conventional cigarettes. In addition, the water stressed areas unfortunately are expanding, reaching regions where in the past didn't suffer from baseline water stress. This impact has been partially offset by programs that have been implemented in our facilities located in water stressed areas to reduce our water consumption.</p> <p>Our efforts are geared towards improving water efficiency throughout the process by implementing new process designs, reusing or recycling water, and using rainwater harvesting.</p>
--	--	--	--	---

W-FB1.2e

(W-FB1.2e) For each commodity reported in question W-FB1.1a, do you know the proportion that is produced/sourced from areas with water stress?

Agricultural commodities	The proportion of this commodity produced in areas with water stress is known	The proportion of this commodity sourced from areas with water stress is known	Please explain
Tobacco	Not applicable	Yes	<p>We do not grow tobacco ; we source it as raw material to manufacture our products. To identify water stressed areas we use the WRI Aqueduct tool and we calculate the tobacco volume grown in the areas with an overall physical water risk scoring above 3. We replicate the global assessment at the local level with specific field visits to validate the methodology on the ground with the help</p>

		<p>of a technical advisor. After rolling out the assessment in eight geographies in 2018, we extended the scope of the assessment in 2019 to Canada, India, Mexico, Mozambique, North Macedonia, Philippines and Turkey. This has allowed us to further improve our knowledge about local conditions faced by farmers and suppliers in the tobacco growing areas where they operate. Studies will continue through 2020 to further understand local risks including water stress risk and build best practices. In 2017-2018, we conducted a water footprint study showing that 53% is due to our agricultural supply chain, 41% to other direct materials supply chain, and 6% to our manufacturing processes (offices and warehouses excluded). In 2017, water baseline studies were conducted in 60 different tobacco growing areas, representing 90% of our tobacco leaf purchases and we aggregate the data in a baseline database to analyse our tobacco leaf water footprint. In 2019 we have continued the monitoring effort on our consolidated 140 tobacco growing areas covering the entire global scope of our tobacco supply chain.</p>
--	--	--

W-FB1.2g

(W-FB1.2g) What proportion of the sourced agricultural commodities reported in W-FB1.1a originate from areas with water stress?

Agricultural commodities	% of total agricultural commodity sourced from areas with water stress	Please explain
Tobacco	11-25	<p>The percentage of total tobacco sourced from water stressed areas increased by 6% compared to the previous year. This is actually due to improvements in PMI's data collection and risk assessment process, which cover a wider scope of farmers and countries.</p> <p>The production of RRP requires less tobacco compared to</p>

		<p>cigarettes. As PMI transitions to RRP, we expect a reduced demand for tobacco per unit of product. We plan to use data from our water risk assessments to inform our decision making process to progressively reduce the percentage of tobacco sourced from water stressed areas by allocating RRP tobacco volumes to less water stressed origins or to origins where this risk is effectively managed through interventions.</p> <p>PMI uses this metric internally to identify priority areas for supplier engagement, initially to inform its sourcing strategy, inform our risk assessment processes and develop supplier specific projects to address water risks. For example, as part of PMI's effort to reduce impacts from agriculture in water stressed areas, we developed a specific approach to evaluate water stress at local level with our suppliers; the results of the analysis triggers active collaboration with our suppliers on water efficiency measures such as drip irrigation systems and others. These interventions are particularly focused on farmers in water stressed areas who are still relying on inefficient irrigation practices such as flood irrigation.</p>
--	--	--

W1.2h

(W1.2h) Provide total water withdrawal data by source.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	25.77	Higher	Even if fresh surface water is globally less than 1% of our total withdrawals, we consider it relevant at local level since, whenever possible, we use it to reduce water sourced from municipal water. In 2019, fresh surface water withdrawals increased by 6.07 megaliters vs. 2018, due to the implementation of various projects. In

				<p>Switzerland a project to use lake water for steam boilers cooling increased fresh water use by 2.46 megaliters vs. 2018. We increased the rainwater catch, in Argentina and Brazil, in total 3.61 megaliters vs. 2018. By sourcing fresh surface water untreated and treating it in-house (with natural means – filtering process and UV treatment), we reduce the use of drinkable water from the municipality and we do not compete with other catchment users like households.</p> <p>We expect this source to increase slightly in the next 1 to 5 years based on learnings from the AWS certification and the implementation of water harvesting and water pump technologies where feasible.</p>
Brackish surface water/Seawater	Not relevant			<p>We currently neither use brackish surface water nor seawater and we do not anticipate to use it in the next 3 to 5 years. We indeed require higher quality water for our operations. This is because we use mainly water for WASH facilities, landscape watering, and the utilities process. Currently, a third of our factories are reusing treated wastewater, e.g. in Senegal where treated domestic wastewater is used in sanitation and hygiene services.</p> <p>We plan to increase these</p>

				<p>initiatives in the mid-term (1 to 5 years) as we continue to innovate and increase quality of treated wastewater so it can be reused and allow PMI to continue operating without the use of brackish surface water/ seawater.</p>
Groundwater – renewable	Relevant	1,400.38	Lower	<p>Renewable groundwater is relevant to PMI's operations as it represents the second largest source of water for the company's direct operations. Inlet water is currently supplied from two main sources: urban network (64%) of municipalities or private suppliers; and groundwater renewable sources (35%) from wells and aquifers, which are metered and verified annually by external auditors.</p> <p>In 2019, 1,400 megaliters were withdrawn from groundwater sources compared to the 1,616 in 2018. The decrease was due to increase of the shares of the fresh surface water sources, as well as the decrease of the total withdrawals and the increase of recycled water</p>
Groundwater – non-renewable	Not relevant			<p>We do not currently use non-renewable groundwater and we do not anticipate to use it over the next 3 to 5 years. PMI meets its groundwater demands through withdrawals of renewable</p>

				<p>groundwater and other renewable sources. This is because we use the majority of our water for WASH facilities, landscape watering, and the utilities process. Currently, a third of our factories are reusing treated wastewater, e.g. in Senegal where treated domestic wastewater is used in toilets.</p> <p>We plan to increase these initiatives in the mid-term (1 to 5 years) as we continue to innovate and increase quality of treated wastewater so it can be reused and allow PMI to continue operating without the use of groundwater non-renewable.</p>
Produced/Entrained water	Not relevant			<p>We do not currently use produced or entrained water and we do not anticipate to use it over the next 3 to 5 years. . We indeed require higher quality water which can be used onsite. This is because we use the majority of our water for WASH facilities, landscape watering, and the utilities process. Currently, a third of our factories are reusing treated wastewater, e.g. in Senegal where treated domestic wastewater is used in toilets.</p> <p>We plan to increase these initiatives in years to come as we continue to innovate and increase quality of</p>

				treated wastewater so it can be reused and allow PMI to continue operating without the use of produced or entrained water.
Third party sources	Relevant	2,582.91	Lower	<p>3rd party sources represent PMI's main source of water. As the company depends on significant amounts of high quality freshwater, this source of water is considered relevant. Water required for production in our factories is currently sourced from urban network (64%) of municipalities or private suppliers and groundwater wells (35%) which are metered and verified annually by external auditors.</p> <p>In 2019, 2,583 megaliters were sourced from third party sources, 6% less than 2018. The decrease was due to the efficiency and reduction initiatives implemented in our factories, despite the incremental production of our reduced risk products (RRP) which require approximately 4 to 5 times more water per unit of product than for conventional products.</p> <p>The expansion of RRP production may increase withdrawn volumes from third party sources in the mid-term (1 to 5 years). We are implementing new technologies to recycle and reuse water to limit the</p>

				increase in water withdrawal.
--	--	--	--	-------------------------------

W1.2i

(W1.2i) Provide total water discharge data by destination.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant	458.3	Lower	Discharges to fresh surface water are relevant because they are a significant amount of PMI's total water discharges, and we have to comply with regulation, including water discharges related ones, in all countries where we operate. We discharge around 22% of treated wastewater into surface water disposal. Wastewater is treated both in public and in on-site water treatment plants before being discharged into surface water. In 2019, we discharged 458 megaliters into surface water, a 19% decrease vs. 567 megaliters in 2018. This decrease was due to the increase of the implementation of new technologies to recycle and reuse water, that resulted in a 34% increase in recycling volumes compared to 2018.
Brackish surface water/seawater	Not relevant			We currently neither discharge to brackish surface water nor to seawater and we do not anticipate this to change in the next 3 to 5 years, therefore this water destination is considered to be not relevant. Our operations are not located near brackish surface water or seawater locations. Onsite audits conducted by our third-party auditor did not reveal any brackish surface water or seawater discharge. We do not

				<p>foresee any discharge to brackish surface or seawater in the next 1 to 5 years.</p> <p>To validate our numbers, PMI's sites are audited annually by SGS and factory visits are part of the onsite verification. This year, SGS assessed Indonesia, Korea, Lithuania, Romania and Russia. Based on the desktop review and site visits, they have not found brackish surface water or seawater discharges.</p>
Groundwater	Relevant	281.58	Higher	<p>Discharges to groundwater are relevant because they represent a significant amount of PMI's total water discharges. PMI's overall wastewater discharge to ground water destination is 13%. Wastewater is equally treated between public and onsite wastewater treatment plants. In 2019, groundwater discharges increased by 25% from 226 megaliters in 2018. The main reason for this increase is the conversion of our factories in Greece and Romania to RRP products production. These factories discharge the treated wastewater in groundwater, and both of these factories have increased their discharges more than double vs. 2018. The increase in reduced risk products (RRP) production, which require more water than conventional products, may also rise discharge volumes in the mid-term (1 to 5 years). PMI will continue to implement new technologies to recycle and reuse water to limit the increase in</p>

				discharge volumes.
Third-party destinations	Relevant	1,385.32	About the same	<p>Discharges to third-party destinations are relevant because they represent the largest share of PMI's total water discharges. Moreover, PMI has to comply with regulation in all countries where it operates, including that related to water discharges.</p> <p>In 2019, third-party discharges decreased by 14% from 1,620.11 megaliters in 2018 due mainly to the incorporation of new designs, reusing or recycling water to limit the increase in groundwater discharge in our factories that resulted in a 34% increase in recycling volumes compared to 2018.</p> <p>The increase in reduced risk products (RRP) production, which require more water than conventional products, may also rise discharge volumes in mid-term (1 to 5 years). PMI will continue to implement new technologies to recycle and reuse water to limit the increase in discharge volumes.</p>

W-FB1.3

(W-FB1.3) Do you collect/calculate water intensity for each commodity reported in question W-FB1.1a?

Agricultural commodities	Water intensity information for this produced commodity is collected/calculated	Water intensity information for this sourced commodity is collected/calculated	Please explain
Tobacco	Not applicable	Yes	We source tobacco as raw material to manufacture our products. Water intensity is

		<p>calculated by dividing the total quantity of water (m3) used for irrigation by tobacco farmers supplying tobacco to PMI by total tobacco volume (ton) sourced. The data collection focuses on water consumption at the farm specifically requesting cubic meters of water use per cultivation stage and it is managed through a global survey covering the entire geographical scope of our tobacco sourcing. Water use has been estimated; recording the water used during seedbed, transplanting and field stages, and considering the irrigation systems used. Both irrigated and rainfed origins are covered, with the latter contributing marginally with water consumption for seedbed and transplanting. For 2019 we have increased the granularity of the collected information including a more precise segmentation of growing areas within markets.</p>
--	--	---

W-FB1.3b

(W-FB1.3b) Provide water intensity information for each of the agricultural commodities identified in W-FB1.3 that you source.

Agricultural commodities

Tobacco

Water intensity value (m3)

330

Numerator: Water aspect

Freshwater withdrawals

Denominator

Tons

Comparison with previous reporting year

Higher

Please explain

Water intensity increased by 24% vs 2018 due to more refined data collection and increased focus in developing a more precise segmentation of growing areas where irrigation plays an important role, such as water stress level and water consumption needs.

Water intensity data is used by PMI to inform its Good Agricultural Practices (GAP), and to establish a water intensity baseline for tobacco production, within the development of context based water targets.

PMI's strategy is based on the optimization of agricultural water footprint by tackling water issues in the watersheds we source tobacco from. PMI supports suppliers to improve their efficiency by implementing water conservation plans and incorporating locally available best irrigation practices. PMI monitors water stress contribution from tobacco growing and outcomes of water stewardship initiatives in a given production area and expects water use trends to decrease, as suppliers continue to implement recommendations from GAP.

W1.4

(W1.4) Do you engage with your value chain on water-related issues?

Yes, our suppliers

Yes, our customers or other value chain partners

W1.4a

(W1.4a) What proportion of suppliers do you request to report on their water use, risks and/or management information and what proportion of your procurement spend does this represent?

Row 1

% of suppliers by number

76-100

% of total procurement spend

76-100

Rationale for this coverage

Through our use of Life Cycle Assessments (LCA), water stress estimation, and water footprints, we have identified our agricultural supply chain as currently having our largest potential environmental impact. As tobacco farming represent 53% of PMI's water footprint, it is key that we focus on gathering water related information from tobacco farmers. We have therefore prioritized engagement with leaf suppliers through our Good Agricultural Practices (GAP) program across 24 countries. Our tobacco suppliers are contractually required to comply with the program's requirements, among which includes reporting on several indicators related to water use and quality. GAP water management

practices guide covers water scarcity, local impacts, water efficiency and WASH. A representative sample is used to collect data and the several visits of Field Technicians to each contracted farmer during the crop season allow for a detailed understanding of local challenges and to monitor progress.

Impact of the engagement and measures of success

PMI requests tobacco suppliers to submit annual self-assessment and carries out on-site reviews by a third party on water consumption and local water issues in the tobacco growing areas. Through these methods, PMI collects metrics on performance indicators incl. water extraction and quality, use of hazardous pesticides and others, integrates them into supplier scorecards and develops internal indicators such as water intensity. Suppliers are expected to annually improve their performance by demonstrating continuous improvements in the annual assessment. PMI uses individual supplier scorecard to track annual performance for each indicator. Success is measured as the percentage of farmers implementing best practices, which result in the mitigation of water related risks and an increase of farmers resiliency.

Comment

We share and discuss with suppliers and their farmers the relevant findings of our assessment.

W1.4b

(W1.4b) Provide details of any other water-related supplier engagement activity.

Type of engagement

Innovation & collaboration

Details of engagement

Encourage/incentivize innovation to reduce water impacts in products and services
Encourage/incentivize suppliers to work collaboratively with other users in their river basins
Provide training and support on sustainable agriculture practices to improve water stewardship
Educate suppliers about water stewardship and collaboration

% of suppliers by number

76-100

% of total procurement spend

76-100

Rationale for the coverage of your engagement

53 % of our blue water footprint is used to grow tobacco required for our products, 41 % is used in the non-tobacco part of our supply chain, and 6 % is used in our manufacturing sites. PMI focuses on covering these agricultural suppliers (tobacco, timber, paper, and cardboard), as they are the most critical to our business in terms of

the relevance of their products, as well as the implications from being exposed to water risks.

Through the implementation of our GAP program we address water issues within the tobacco supply chain (covering contracted but also other farmers in the markets we source from), collaborating with suppliers on implementing best practices towards generating measurable improvements. PMI supports suppliers to identify and mitigate risks where they operate and seize water opportunities through dedicated trainings for farmers and technicians aimed at increasing their capacity on water resource management at the farm.

Impact of the engagement and measures of success

In 2019 we supported suppliers to conduct local water risk assessments in seven markets: Canada, India, Mexico, Mozambique, North Macedonia, Philippines and Turkey. In 2019 for example, with the support of our Leaf Suppliers, PMI sponsored WASH projects with the drilling of 13 solar-pump boreholes and 30 hand-pump boreholes in central Malawi and 60 hand-pump boreholes in Tete Province, Mozambique. These boreholes directly benefit more than 3.500 tobacco farmers that were also trained on WASH practices resulting in estimated benefits for 80.000 community members.

With GAP, we engage with our tobacco suppliers and their farmers promoting training sessions and methods to drive improvements, success is measured as farmers' participation to training (89% in 2019) and the % of farmers implementing best practices as per GAP (66% in 2019). The beneficial outcome for PMI is to have a more resilient supply chain to water related issues.

Comment

Along with these interventions improvements were made on sanitation facilities, concrete storage tanks, and rainwater harvesting systems. Furthermore, we distributed household water treatment products and organized WASH training sessions in villages in Malawi.

Type of engagement

Onboarding & compliance

Details of engagement

Requirement to adhere to our code of conduct regarding water stewardship and management

Other, please specify

Supplier due diligence and performance program, Sustainable Transformation Enables Performance (STEP), to achieve supplier compliance with our responsible sourcing principles in the Non-Tobacco (Leaf) supply chain.

% of suppliers by number

1-25

% of total procurement spend

26-50

Rationale for the coverage of your engagement

We focus STEP deployment on critical suppliers identified by our risk-based criteria. We started to formally onboard suppliers in July 2019. This first wave focused mainly on suppliers of direct materials and electronics. PMI's definition of critical suppliers is the following:

- High-spend supplier: a supplier with whom PMI spends \geq \$500 thousands per year
- Essential component supplier: all Tobacco (Leaf) and all Procurement Direct Spend (Direct Materials and Electronics) suppliers are considered essential components.
- Non-substitutable suppliers: a supplier that cannot easily be replaced due to the lack of competition on the market and/or the high specificity of the component provided to PMI.

Impact of the engagement and measures of success

Through this process we request and analyse the status of our supplier's compliance with our responsible sourcing principle, where water resources conservation and pollution, is an integral part. The results of this due diligence will trigger further auditing process steps (desktop and/or an on-site audit). Already by the first semester of 2020 around 700 suppliers' subsidiaries were invited to submit in the STEP platform, 1 desktop audit was completed in 2019, 21 completed & 8 in progress in 2020. We aim in the future to integrate the tobacco suppliers, where the engagement activities are currently far more advanced.

Comment

Suppliers are initially screened internally through a heatmap to identify the inherent risk profile based on the type of material or service, as well as the country of production, or service delivery. This risk profile tailors the subsequent evaluation: low risk suppliers will complete a basic questionnaire, while medium or high risk suppliers complete a full questionnaire. Depending on the results of the latter, the suppliers may go through desktop and/or on-site audit.

W1.4c

(W1.4c) What is your organization's rationale and strategy for prioritizing engagements with customers or other partners in its value chain?

PMI engages multiple partners in its value chain including consumers, key account customers, external consultants, verification bodies, supplier communities and other key stakeholders, and uses various methods such as dialogue, development of projects, training and materiality assessment. PMI prioritizes engagement with stakeholders who can contribute to minimize the risks within their supply chain (e.g., through the development of initiatives with shared sustainability goals) or to the achievement of PMI's water targets and create opportunities to collaborate and innovate. PMI measures engagement success in a variety of ways depending on the stakeholder and engagement activity; these can include qualitative indicators such as feedback from supply chain surveys and presentations on water practices (e.g. CDP SC

program), increased interest from customers on water issues, as well as quantitative indicators such as response rates (e.g. from surveys) and achievement of engagement targets (e.g. number of participants) and other water related targets (e.g. optimization of water footprint). An example of this is PMI's engagement with consumers and employees to address cigarette butt littering, which causes negative impacts on water and land habitats. In 2019, PMI launched its anti-littering program including 54 activities and involving over 3962 participants in 31 countries. As part of the anti-littering campaign, PMI also engaged consumers through public communication efforts such as the 'Leave no trace', which displayed anti-littering messages on-pack and at points of sale in 9 markets. PMI also used clean-up activities to further engage employees; in Mexico 140 employees performed clean ups in 7 cities, while in Poland 500 employees conducted individual clean-ups.

PMI also engages other sustainability experts such as Quantis, SGS, South Pole, AB Sustain, ERM, BSR, Ecofys or Carbon Trust on water stewardship, project implementation and progress tracking.

W2. Business impacts

W2.1

(W2.1) Has your organization experienced any detrimental water-related impacts?

No

W2.2

(W2.2) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?

Yes, fines, enforcement orders or other penalties but none that are considered as significant

W2.2a

(W2.2a) Provide the total number and financial value of all water-related fines.

Row 1

Total number of fines

4

Total value of fines

48,405

% of total facilities/operations associated

8

Number of fines compared to previous reporting year

About the same

Comment

PMI had 4 water related fines in 2019, the same number as in 2018. One example, as mentioned in our 2019 PMI's Integrated Report, was related to the waste water treatment plant in Yangsan Factory of Philip Morris Korea, where some of the waste water was accidentally drained to rainwater due to operational mistake of the contracted service provider. PMI informed the authorities, implemented preventive measures, and paid the corresponding fine. In PMI Integrated Report we report on fines above \$10,000 while here we considered all fines including the ones below this threshold.

W3. Procedures

W-FB3.1

(W-FB3.1) How does your organization identify and classify potential water pollutants associated with its food, beverage, and tobacco sector activities that could have a detrimental impact on water ecosystems or human health?

Although our direct operations use minimal water relative to our whole value chain (6% of total water footprint), we are cognizant of potential water pollutants that may result from our direct processes and supply chain. All of PMI's wastewater is either treated on-site or sent to treatment facilities prior to discharge respecting local legal regulations, limits and other applicable standards.

In PMI we have internal standards on the spill prevention and chemical management in order to prevent water pollution. These standards are integrated in all our factories environmental management systems, and their implementation is certified in the frame of the ISO 14001 certification. These standards dictate that all chemicals are assessed before delivery to the premises based on the MSDS, in case these are hazardous, alternative materials are being evaluated. Based on their properties (health & safety hazards and environmental impacts) they are classified as per local legislation and internal assessment (ex. Toxicity, water hazards, flammability) and are being registered and monitored. For the ones that are classified hazardous to the environment appropriate technical measures are put in place to prevent accidental release (retention basins, leak detectors, secondary contaminant among others). All employees and contractors handling hazardous materials are systematically trained and appropriate spill kits are provided on the areas, as part of the assessment. Underground storage tanks for hazardous materials, are officially avoided, and can only be approved by exemption. Waste water generated in our factories is either directed to authorize treatment plants of the industrial zone or municipality or previously treated onsite through biological/physicochemical process. We have developed high corporate technical standards for the design and operations of these wastewater treatment plants, including the parameters to be monitored in each stage of the treatment but also the type and specifications of the measuring instrumentation. Six factories had been already certified against the AWS Standard by the end of 2019. We have committed to certify at least 11 facilities by 2020 and all facilities by 2025. As we strive to treat wastewater from direct operations according to all applicable laws, regulations and standards where PMI operates, we do not expect significant water-related impacts either on humans or ecosystems. However, negative impacts on ecosystems and humans can be caused from the misuse of pesticides in our supply chain, which are used to

protect tobacco crops from pests and diseases, can contaminate aquatic systems by surface run-off and leaching. This contamination can be caused by inappropriate management of the pesticides and can have an impact on aquatic life or fish-eating wildlife, such as depletion of oxygen by eutrophication. Since Highly Hazardous Pesticides (HHPs) can be considered either, carcinogenic, mutagenic, toxic for reproduction, pesticide residues present in watercourses and groundwater can also have an effect on humans through consumption of fish and shellfish that are contaminated by pesticides. To avoid these negative impacts from materializing, PMI requires all those who grow and supply its tobacco to implement Integrated Pest Management (IPM) practices as part of Good Agricultural Practices (GAP) program. PMI's GAP includes a series of principles and measurable standards to be met by all those who grow and supply tobacco to PMI, including the ones related to the use of pesticides such as frequency of use, quantity, and type of pesticides. Where the use of synthetic pesticides is necessary, the supplier must take into account environmental and human health risk where there is a choice of different pesticides. Products of World Health Organization (WHO), toxicity class III and higher (the higher the class, the lower the toxicity level) should preferably be used. Toxicity class II should only be used in well-justified cases, and toxicity class I was prohibited since 2018. Suppliers must have a list of recommended pesticides suitable for the local conditions that cover the most common pests and diseases. The list should include low toxicity and pest-specific products and can use local brand names relevant to the active ingredients listed to ensure greater farmer understanding. This list of pesticides should only include those that are registered for use in tobacco in the country.

To support the elimination of WHO Tox1 and other Highly Hazardous Pesticides, PMI promotes the use of less hazardous alternative pesticides that include biopesticides such as botanicals, microbials, macrobials and semi chemicals. Tobacco suppliers promote the use of low-toxicity and pest-targeted pesticides while avoiding preventative treatments, conducting training and other initiatives with their contracted farmer base.

W-FB3.1a

(W-FB3.1a) Describe how your organization minimizes the adverse impacts of potential water pollutants on water ecosystems or human health associated with your food, beverage, and tobacco sector activities.

Potential water pollutant

Pesticides and other agrochemical products

Activity/value chain stage

Agriculture – supply chain

Description of water pollutant and potential impacts

Pesticides, also called Crop Protection Agents (CPAs), which are used to protect tobacco crops from pests and diseases, can contaminate aquatic systems by surface run-off and leaching and have an impact on aquatic life or fish-eating wildlife, such as depletion of oxygen by eutrophication; pesticide residues present in watercourses and groundwater can also have an effect on humans through consumption of fish and

shellfish that are contaminated by pesticides. The contamination can be caused by inappropriate management of the pesticide and can have an impact on the ecosystems according to the toxicological characteristics of the active ingredient.

An example from tobacco cultivation is Diamide insecticides, Flubendiamide and Chlorantraniliprole. They are used in some geographies to control Lepidoptera pests in tobacco. It has been reported that these insecticides may cause hazard to the aquatic life. In order to limit potential impact on water, PMI has imposed for these insecticides MRLs which are lower than those adopted by the industry.

Impacts from potential water pollutants mismanagement could have significant consequences to PMI's tobacco supply chain. In 2018, PMI identified that misuse of pesticides could represent around 5% of PMI's modelled water pollution footprint and this estimation remains valid for 2019.

Furthermore, the insecticide methomyl, classified as WHO Toxicity Class I (WHO TOX1), has been completely eliminated from the production of tobacco destined to PMI. Methomyl, used in the past to control budworms and acutely toxic to humans and many aquatic species, has been substituted with less hazardous alternatives such as the biopesticide *Bacillus thuringiensis* which has no toxicity for aquatic life and human health.

Management procedures

- Soil conservation practices
- Crop management practices
- Sustainable irrigation and drainage management
- Fertilizer management
- Pesticide management
- Follow regulation standards

Please explain

PMI requests its leaf suppliers to implement Good Agricultural Practice program (GAP) which defines the principles and measurable standards to be met by all those who grow and supply tobacco to PMI with the aim that acceptable pesticides are used to reduce water pollutant risk.

Where synthetic pesticides are used, the supplier must take into account environmental and human health risk where there is a choice of different pesticides. Products of World Health Organization (WHO), toxicity class III and higher (the higher the class, the lower the toxicity level) should preferably be used. Toxicity class II should only be used in well-justified cases, and toxicity class I must not be used at all.

PMI implements a global Integrated Pest Management (IPM) program to reduce the use of unnecessary pesticides (Crop Protection Agents - CPAs), promoting the use of less hazardous alternatives and to manage them correctly. PMI developed tools to support the implementation of the program in collaboration with the not-for-profit Centre for Agriculture and Bioscience International (CABI), e.g. the IPM App and a website with country-specific management factsheets on tobacco pests and diseases and on IPM and CPAs management which are kept up to date. The App has reached 1,400 users, and the IPM website had more than 8,000 views in 2019. A specific Sustainable Pest

Management training was organized in collaboration with CABI for field supervisors. A database of global biopesticides and low hazardous CPAs alternatives is available to farmers. In order to limit potential impact on water, PMI has set MRLs, which are lower than those adopted by the industry, for high impact insecticides to prevent potential water pollution impacts from mismanagement of CPAs. This is one of the reasons PMI has implemented GAP as requirements to all its suppliers, promoting the reduction of the use of unnecessary CPAs, the safe disposal or recycling of empty CPA containers to prevent water contamination. These tools combined with trainings raise awareness of potential impacts of each pesticide and enable PMI to deter the use of these. PMI measures success for GAP and IPM programs, in 2019, 100% of the tobacco we sourced was free of any quantifiable level of residues attributable to the use of WHO TOX1 CPAs. Furthermore, 92 % was free from any other quantifiable HHP residues, showing further progress against our target to completely eliminate the use of HHPs by the 2020 crop.

Potential water pollutant

Fertilizers

Activity/value chain stage

Agriculture – supply chain

Description of water pollutant and potential impacts

Fertilizers are used to improve tobacco yield within PMI's agricultural supply chain; however, they can enter groundwater or watercourses, impacting aquatic ecosystems through eutrophication. PMI considers impacts from mismanagement of fertilizers such as overdosage or improper application related to vulnerable natural areas especially water bodies near to tobacco growing areas to be of a significant magnitude as the problem involves all of PMI's suppliers of tobacco, and if not properly managed fertilizers could cause eutrophication of water and pollution. For this reason, good fertilizer management practices are implemented with the GAP program for all suppliers to comply with.

In 2018, with the support from an external consultant, PMI developed its water footprint model based on the ISO14036. The model considers PMI's direct and indirect operations through a life-cycle approach, incorporating water consumption, depletion and pollution aspects. With this tool PMI identified that fertilizer leaching from tobacco cultivation could represent up to 62% of PMI's modelled water pollution footprint (non-tobacco supply chain represents an additional 33%) and this remains pertinent for 2019.

Management procedures

Soil conservation practices
Crop management practices
Sustainable irrigation and drainage management
Fertilizer management
Calculation of fertilizer intensity data

Follow regulation standards

Please explain

Through its Good Agricultural Practices (GAP) program, PMI promotes a series of practices for suppliers to optimize fertilizer usage and adjust rates to avoid unnecessary applications. PMI encourages soil analysis as a basis for farmers to optimize fertilization to meet soil fertility and crop nutritional requirements. By calculating the soil available nutrients and related deficiencies and matching them with plant uptake needs, an optimized fertilization plan can be designed and implemented, ensuring no excesses to the amount of fertilizers needed by the plant and, therefore, minimizing fertilizer leaching to the water table, avoiding the main source of eutrophication. PMI's GAP principles and standards promote the use of fertilizers with identified sources of origin, with available certificates of analysis (i.e.: in accordance also to the Sustainable Tobacco Production – an industry standard – fertilizers should be analysed to determine specific substances such as cadmium and chloride), and that comply with regulatory standards, where enforced, or with the PMI's internal GAP standards which apply to all our suppliers. Through GAP, PMI recommends appropriate amounts of fertilizers that can minimize their negative impacts on the environment. PMI also promotes the development of water protection plans that include the implementation of buffer zones where fertilizers are utilized, the avoidance of methods and timing of fertilizer application that may result in leaching, the safe handling and storing of fertilizers to prevent contamination of water. PMI measures and evaluates success of these initiatives through a series of targets and indicators within GAP, including the % of farmers implementing best practices as described in the program, which is part of the contractual obligations for suppliers.

W3.3

(W3.3) Does your organization undertake a water-related risk assessment?

Yes, water-related risks are assessed

W3.3a

(W3.3a) Select the options that best describe your procedures for identifying and assessing water-related risks.

Direct operations

Coverage

Full

Risk assessment procedure

Water risks are assessed as part of other company-wide risk assessment system

Frequency of assessment

Annually

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Tools on the market
International methodologies
Other

Tools and methods used

WRI Aqueduct
Life Cycle Assessment
IPCC Climate Change Projections
Alliance for Water Stewardship Standard
Internal company methods
External consultants

Comment

In 2015, PMI conducted a comprehensive Climate change risk assessment (CCRA) for corporate and asset level, identifying physical risks and opportunities up to 2025-2030; Quantis developed water and risk footprints in 2017 and 2018 respectively. We used the WRI Aqueduct and IPCC Projections to update these annually and in early 2020 we performed a global water risk assessment covering all our direct operations. In 2017, we joined Alliance for Water Stewardship and certified our Brazilian factory in 2018, to better understand local risks, and by the end of 2019 6 sites were already certified. Our target for 2020 is to have 11 factories certified and the rest by 2025.

Additionally, in 2018 PMI conducted a climate change risk assessment in line with TCFD recommendations. As part of this assessment, PMI identified risks and opportunities for its business under a reference scenario (exploring a decarbonization approach under the existing climate and energy policies) and a 2 degrees scenario (aligned with an average global temperature increase below 2 degrees).

In our assessment process we considered the importance of water resources for PMI's direct and indirect operations and looked into several water elements including projected prices of water and their implications, changes in water supply, water stress areas and others.

Supply chain

Coverage

Full

Risk assessment procedure

Water risks are assessed as a standalone issue

Frequency of assessment

Annually

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Tools on the market
International methodologies
Other

Tools and methods used

WRI Aqueduct
Life Cycle Assessment
IPCC Climate Change Projections
Internal company methods
External consultants

Comment

PMI undertakes an annual water risk assessment which uses internal methodologies, tools on the market and external consultants to identify risks and opportunities in the supply chain.

PMI's Global Water Risk Assessment uses tools that are available in the market, including WRI Aqueduct, Water Risk Filter, national databases, and others.

As part of this assessment, PMI measures its water footprint using primary and secondary data. Since 2018, PM undertakes Local Risk Assessments (LRA) in key markets, where suppliers' water risks were evaluated during a 3-days workshop. The LRA was carried out with the support from external consultants with the objective of identifying granular, and highly relevant local water risk related data together with a variety of stakeholders in order to better understand water risks and their materiality to the areas where PMI sources tobacco. In 2019 the assessment was carried out in 7 locations, using 17 different indicators to measure physical, regulatory and reputational water risks.

Other stages of the value chain

Coverage

Partial

Risk assessment procedure

Water risks are assessed as a standalone issue

Frequency of assessment

Every two years

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Tools on the market
International methodologies
Other

Tools and methods used

WRI Aqueduct
IPCC Climate Change Projections

External consultants

Comment

In 2015 external consultants ERM and Quantis conducted climate change (CC) risk assessment for corporate and asset level physical risks & opportunities up to 2030; water footprints were developed in 2015 and 2018 respectively. We used WRI Aqueduct and IPCC CC Projections to update this annually. We are expanding to assess current and future water-related risks more broadly across our value chain, such as water scarcity and quality in tobacco growing areas and water demand in locations where we run manufacturing facilities.

W3.3b

(W3.3b) Which of the following contextual issues are considered in your organization’s water-related risk assessments?

	Relevance & inclusion	Please explain
Water availability at a basin/catchment level	Relevant, always included	<p>Water availability at a basin/catchment level is relevant since water is a key input that is used in our factories, in filter manufacturing, paper and packaging materials, for staff use and green spaces. Moreover, in our agricultural supply chain water availability is needed for growing tobacco and other timber based commodities. For these reasons, water availability is always included in our risk assessments.</p> <p>For our direct operations, we assess water availability risks through our company level risk assessment initiatives. For instance, external consultants, conducted climate change risk assessment (CCRA) for corporate & asset level physical risks & opportunities up to 2030 in 2015 and in 2018; water footprints in 2015 and 2018 respectively. We use the WRI Aqueduct and IPCC Climate Change Projections to update this periodically. We have also become a member of the Alliance for Water Stewardship to better understand how to conserve the watersheds where we operate, and our factory in Brazil was certified against the AWS Standard in March 2018. We have committed to certify at least 11 facilities by 2020 and the rest by 2025. We are expanding our water programs by assessing current and future water-related risks more broadly across our value chain. These risks include water scarcity and quality in tobacco growing regions, flood risk in warehouse locations and ports, and water demand in locations where we have manufacturing facilities.</p> <p>In 2019, PMI undertook a Local Risk Assessment (LRA) in</p>

		<p>key markets, where suppliers' water risks were evaluated. The LRA was carried out with the objective of identifying granular, and highly relevant local water risks. The assessment was carried out further 7 locations, using 17 different indicators to measure physical, regulatory and reputational water risks.</p>
<p>Water quality at a basin/catchment level</p>	<p>Relevant, always included</p>	<p>Water quality at a basin/catchment level is regarded as relevant since PMI needs to ensure that high quality water is used during the manufacturing of our products to protect our consumers and to meet strict Food and Drug Administration regulations for our reduced risk products. Water quality is also important to our supply chain to ensure high quality raw materials and to protect workers' health and livelihoods by providing access to Water, Sanitation and Hygiene services (WASH). For these, reasons water quality is always included in the risk assessment.</p> <p>PMI assesses this issue through a combination of internal procedures and use of external tools and methodologies. For example, in direct operations PMI assesses the compliance of manufacturing sites with ISO14001 and OHSAS18001 programs and minimum EHS requirements. We have detailed water quality standards for potable water and water used as ingredient in production, which should meet at least the requirements described in the EU directive 98/83/EC unless stricter local regulations are enforced.</p> <p>For its supply chain, PMI uses external tools and external consultants to assess risks associated to water quality. For example, PMI uses WRI Aqueduct and IPCC Climate Projections to explore how its supply chain is exposed to physical risks related to quality such as changes in return flow ratio and upstream protected lands, as these could significantly alter the quality of water used by farmers in downstream areas. We have also become a member of the Alliance for Water Stewardship (AWS) In March 2018, our factory in Brazil was certified against the AWS Standard, which covers water quality at a basin level issues. We commit to certifying at least 11 factories by 2020 and all PMI operations by 2025.</p> <p>In 2019, PMI undertook a Local Risk Assessment (LRA) in key markets, where suppliers' water risks were evaluated in 7 locations, using 17 indicators to measure physical,</p>

		regulatory and reputational water risks.
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, always included	<p>Our operations withdraw small volumes of water compared with other industries. Nonetheless, stakeholder conflicts concerning water resources at a basin/catchment level always are included in our water risk assessments since access to water and water rights within our supply chains are essential to our operations. Our water risk assessment aims, to provide PMI a better understanding of water availability at the basin level, water use by different stakeholders and potential implications on water quality and quantity that could lead to competing demand and potential conflicts over time. An example of this is PMI's local water risk assessment with tobacco suppliers and growers, where stakeholders are engaged to identify how water demand from different stakeholders in the basin can affect the water budget in terms of quality and quantity. As part of this process, stakeholders identify the main risks as well as potential approaches to prevent future conflicts over water resources.</p> <p>Another example includes PMI's work with external consultants to conduct its water footprints, which highlight water hotspots across the company's direct operations and supply chain. From this assessment, PMI learned that more than 50% of its water footprint can be attributed to its agricultural supply chain (tobacco represent 53% of PMI's freshwater consumption). PMI complements this analysis with the use of external tools and methods such as WRI Aqueduct and IPCC Climate Change Projections to identify locations facing higher water risks such as water scarcity and extended droughts, which could result in the availability of less water resources, causing potential conflicts with local stakeholders. PMI also includes WASH services for local stakeholders as part of the assessment.</p> <p>We became a member of the Alliance for Water Stewardship to better understand how to conserve the watersheds where we operate and prevent any potential conflicts with local stakeholders. In March 2018, our Brazilian factory was certified against the AWS Standard. By the end of 2019, we had certified five more sites – in Italy, Portugal, Indonesia, Russia, and Turkey – as part of the program to certify all factories by 2025, with the first eleven targeted by 2020.</p>

<p>Implications of water on your key commodities/raw materials</p>	<p>Relevant, always included</p>	<p>Any significant change in tobacco leaf and clove prices, quality and quantity could affect our profitability and our business. Water is a key input for our agricultural supply chain as it is needed for growing tobacco and for other timber based materials, therefore we consider the implications of water on our key commodities as relevant and always include this issue in our risk assessments.</p> <p>Implications of water on PMI's key commodities are factored into the risk assessment through a combination of internal company methods, and the use of external methodologies and other tools. Internally, PMI uses indicators from the GAP program to assess different water variables such as water availability, water use and water intensity from production. These indicators are used by all suppliers, with an emphasis on tobacco leaf and clove suppliers. PMI uses WRI Aqueduct and IPCC Climate Projections to explore how its supply chain is exposed to physical risks that could have direct implications on its key commodities, such as the increased occurrence of heatwaves, droughts and floods. For the markets where a Local Risk Assessment (LRA) report is available the inputs mentioned above are complemented by the estimation of baseline water stress and groundwater table decline to provide an indication of the magnitude of the issue.</p> <p>In 2019, PMI undertook a (LRA) in key markets, where suppliers' water risks were evaluated. The LRA was carried out with the objective of identifying granular, and highly relevant local water risk related data. The assessment was carried out in further 7 locations, using 17 different indicators to measure physical, regulatory and reputational water risks. Additionally, PMI uses water footprint and supplier engagement questionnaires to monitor and evaluate how water requirements for the tobacco production change overtime.</p>
<p>Water-related regulatory frameworks</p>	<p>Relevant, always included</p>	<p>Although our direct operations withdraw small volumes of water in comparison to other industries, ensuring compliance with water-related regulatory frameworks is important for our operations, for example to maintain license to operate and to be able to withdraw water/discharge water, and for our agricultural supply chain. This is particularly relevant for PMI, as 64% of our water withdrawals are from third parties which could face further regulations in the future. We are subject to international,</p>

		<p>national and local environmental laws and regulations in the countries in which we do business. Therefore, water-related regulatory frameworks are always factored into the water risk assessment.</p> <p>PMI assesses this issue through the use of internal company methods. For example, PMI has specific programs across business units designed to meet and go beyond applicable environmental compliance requirements related to water withdrawal, consumption and discharges. As part of these programs, PMI uses a consistent environmental and occupational health, safety and security management system ("EHSS") at all our manufacturing centers. We track compliance through our EHS Systems and regulatory radar screen. PMI also follows the guidelines provided by the EU on maximum limit of chemical substances for drinking water and products (controlled by nearly all the regulatory frameworks), and compliance teams in our water specifications for process water (slurry ingredient and final wash water). All our manufacturing sites are assessed against ISO 14001. This certification process ensures that legal requirements are identified and complied with, otherwise the certification cannot be granted. In addition, we have also become a member of the Alliance for Water Stewardship to better understand how to conserve the watersheds where we operate, and our factory in Brazil was certified against the AWS Standard in March 2018. We have committed to certify at least eleven facilities by 2020 and all of our operations worldwide by 2025 to stay ahead of any water-regulatory frameworks dealing with water abstraction and discharge consents.</p>
<p>Status of ecosystems and habitats</p>	<p>Relevant, always included</p>	<p>The conservation of ecosystems and habitats is key for the preservation of water-related ecosystem services, such as the maintenance of water quality and availability. Thus, the status of ecosystems and habitats are considered relevant for both our operations and agricultural supply chain, and factored into company level risk assessment initiatives.</p> <p>PMI assesses this issue through a variety of methods including the use of internal methodologies (analysis of information from the Good Agricultural Practices (GAP) program) and external consultants. In 2019 we continued to focus our work to enhance understanding of potential impacts on biodiversity (including life on water) from our</p>

		<p>direct operations and supply chain. From this work, we identified that most of the potential impacts on biodiversity can be found across our supply chain and are caused by the use of fertilizers, pesticides and other land use activities. Having identified these potential threats to biodiversity and ecosystems, we defined a series of indicators to be measured and monitored by suppliers as part of GAP program, including the development of water conservation plans, with the aim to assess both suppliers' potential impact and adherence to GAP. The indicators are aligned with recommendations and standards by the international Institute for Sustainable Development, the Business and Biodiversity Offsets Programme, and the Convention on Biological Diversity. We're expanding our water programs by assessing current and future water-related risks more broadly across our value chain.</p> <p>Littering is an issue directly related with water pollution and biodiversity. Through our latest revision of our sustainability materiality assessment in 2019, littering stood out as Tier 1 issue. While many consumers dispose of their waste properly, too much waste ends up in the environment. We are addressing this littering issue with a multipronged approach, including awareness-raising campaigns, ongoing research into alternatives to filters and improved design of products and packaging. Such efforts also have the potential to help mitigate costs related to emerging environmental legislation.</p> <p>Moreover, given the highly visible nature of butt littering, addressing the issue carries reputational benefits for our brands and company.</p>
<p>Access to fully-functioning, safely managed WASH services for all employees</p>	<p>Relevant, always included</p>	<p>For PMI the socio-economic wellbeing of tobacco farming communities is tier 1 topic in 2019 materiality assessment. For PMI, this means improving the capacity of tobacco farming communities to achieve a decent standard of living. Specifically access to water, sanitation, and hygiene (WASH) is a fundamental human right that helps ensure healthy, prosperous communities and therefore is a relevant risk considered in PMI assessment Lack of access to Water, Sanitation and Hygiene services (WASH) poses a risk to farmers' and workers' health and livelihoods. WASH related risks within our tobacco supply chain are identified initially through a global water risk assessment performed using the WRI Aqueduct tool. Based on the results of the</p>

		<p>global assessment, an internally developed methodology for a local water risk assessment (LRA), which covers WASH indicators, is implemented for at risk countries with the support of regional teams and suppliers. These indicators are continuously monitored at farm level through internally collected data with the support of our field technicians and reported on an annual basis. These results help drive the implementation of appropriate interventions in areas at risk. In 2019, we extended the “WASH Action Plan” in Malawi, which aims to address inadequate access to WASH services in our leaf supply chain and to identify priority needs and feasible actions. A sound action plan has been put in place for a multiyear intervention to support our farming communities to reaching WASH goals. For our employees, access to WASH is addressed as part of our ISO14001 and OHSAS18001 programs and minimum EHS requirements. PMI tracks compliance with these requirements at the facility level through the use internal reporting tools, and identifies any potential risks that could prevent the company from providing full functioning, safely managed WASH services to all employees. We have also become a member of the Alliance for Water Stewardship which recently added WASH as its fifth strategic outcome. Our factory in Brazil was certified against the AWS Standard in March 2018. We have committed to certify at least eleven facilities by 2020 and all of our operations worldwide by 2025.</p>
<p>Other contextual issues, please specify</p>	<p>Relevant, sometimes included</p>	<p>There are no other contextual water related issues that we have identified. For many years, we have been expanding our water programs and assessing current and future water-related risks more broadly across our value chain. These risks include water scarcity and water quality in tobacco growing regions including India and Mozambique, flood risk in major tobacco warehouse locations and ports, and water demand in cities where we have manufacturing facilities. Other contextual issues are not anticipated to be relevant now or in the future, however, we continue to monitor emerging research, run tools like WRI Aqueduct, ask for stakeholder input, and conduct materiality assessments to understand if there are other contextual issues around water that PMI should be engaged on.</p>

W3.3c

(W3.3c) Which of the following stakeholders are considered in your organization’s water-related risk assessments?

	Relevance & inclusion	Please explain
Customers	Relevant, always included	<p>Customers are included because they are increasingly expecting brands to manage their environmental impacts, especially related to water management and climate change. Failure to respond to PMI’s customers’ concerns can negatively impact its business (for example a potential impact on sales).</p> <p>PMI engages customers through a series of methods including ongoing dialogue, surveys and questionnaires, corporate communications, forums and events, and hotline and call centres. Additionally, we ensure high quality water in our products to protect our customers. We also respect the vulnerability of water resources we use and the role of those resources in the wider community, which may affect the communities where some of our customers live. As such we include customers in our water risk assessments through: i) We are increasingly using life-cycle assessment (LCA) thinking to evaluate options for reducing environmental impacts throughout the entire life-cycle of our products. Considering the transformation of our business with the introduction of our new product offering, Reduced-Risk Products (RRPs), we will expand our LCA to cover the new suite of products including review of water risks.</p> <p>Additionally, in the last 2 years, Quantis has conducted water footprints of our value chain. Our consumer insights research helps us understand the potential market for eco product developments. PMI encourages proper disposal of cigarette butts and heated tobacco units by raising awareness and providing equipment, such as ashtrays and pocket ashtrays. We are improving our understanding of littering behaviour, of anti-littering approaches, and of ways to directly reach consumers about this issue. For example, IQOS heated tobacco units are much less littered than cigarette butts. In 2019 PMI engaged with its consumers in littering prevention, an issue connected with water stewardship and launched 54 anti-littering campaigns with 3962 participants in 31 countries.</p>

Employees	Relevant, always included	<p>Employees are included because they are the ones driving the implementation of PMI's goals and targets, they are also the ones managing suppliers. Failure to engage employees could lead to not meeting PMI water related targets.</p> <p>PMI engages its employees on water issues through ongoing dialogue, surveys and questionnaires, trainings, corporate communications, forums and events, reports and publications, PMI provides relevant water information such as the release of targets, as well as progress to relevant employees, asks for their feedback. An example of awareness raising sessions are annual eco-weeks held in our sites including initiatives like planting trees, recipes for homemade natural soap or advices on saving water at home. Specific company awards such as the Chairman's Award and Excellence Awards, which are either cash or stock, are available for Sustainability and EHS Managers, project teams and other employees who are responsible for water related initiatives and improvements. Other employee engagement activities take place in our AWS certified sites, through awareness campaigns and additional communications on specific risks and opportunities found in the catchment area and how they can contribute at their workplace and at home to mitigate them. We joined the AWS in 2017 and in March 2018, our Brazil factory became the first factory in the country to be AWS certified. We plan to have the 11 factories which ranked highest in our previous risk assessment certified by 2020 and to extend to the rest of our operations until 2025. This will enable further engagement opportunities and support the achievement of our targets. Water quality is also important to protect workers' health and livelihoods by providing access to adequate safe Water, Sanitation & Hygiene services (WASH). We strive to provide access to WASH to all our facilities and contracted farms.</p>
Investors	Relevant, always included	<p>Investors are included because as one of the most important stakeholders they have to be informed on the performance of the company in all aspects. Failure to respond to investors' water concerns would directly translate in financial risks for PMI. PMI engages Investors through various methods including ongoing dialogue on water and sustainability issues, corporate communications and reports, public disclosures such as CDP, ESG ratings such as SAM CSA, attendance and contributions to formal gatherings, forums and events, ad-hoc requests and calls. Another example is the engagement about the results of the water risk assessment, which are shared with investors. We</p>

		also communicate through our annual sustainability report and website. Our 2019 PMI Integrated Report is available on our website.
Local communities	Relevant, always included	<p>We respect the vulnerability of water resources we use and the role of those resources in the wider community. Failure to include local communities could result in potential conflicts over water resources especially when water resources are limited in water stressed areas, and particularly in the company's agricultural supply chain. For example, a lack of availability of water resources for all stakeholders/users at the watershed level could result in an increased competition for water resources between agricultural requirements and local community requirements, causing subsequent disruptions in agricultural production and leading to operational risks. We strive to use our water optimally, taking into account the surrounding water basin context and community demand, therefore local communities are relevant and always included in our water risks assessments.</p> <p>Our approach to working with communities is based on 3 principles - water preservation (management/pollution prevention), innovation (better irrigation/less water intensive seeds), and engagement (safe water, sanitation and hygiene-WASH). As part of PMI's AWS activities, the company consults local communities and stakeholders on water issues. In 2019 PMI engaged local communities and other stakeholders as part of its Local Risk Assessment (LRA) to identify granular, highly relevant water risk data at a local level. The format of the LRA is a workshop, which trains suppliers and local communities to be able to identify and understand water risks.</p> <p>E.g.: in 2019, PMI sponsored WASH projects building boreholes in Malawi and Mozambique, distributed household water treatment products and organized WASH training sessions in villages in Malawi, with estimated beneficiaries above 3.500 tobacco farmers and 80.000 community members.</p> <p>The capacity building part is really important because it enables PMI to continuously identify and respond to water related risks. The assessment was carried out in Canada, India, Mexico, Mozambique, North Macedonia, Philippines and Turkey. The assessment in Mozambique helped highlight the lack of access to WASH services in small holder farms and we began supporting their access to WASH.</p> <p>We engage with local communities in several ways, including ongoing dialogue, surveys and questionnaires, training, corporate communications, formal gatherings, forums and events, reports and publications, memberships and</p>

		partnerships, hotline and call centres, consultation processes and others.
NGOs	Relevant, always included	<p>NGOs are included because they can often provide support and technical expertise to manage PMI's sustainability related risks. Failure to include NGOs could result in a lack of access to local knowledge, which could prevent PMI from meeting its sustainability targets with regard to water issues.</p> <p>PMI engages NGOs in a variety of ways, depending on the location of the organization as well as their area of expertise. Engagement methods include ongoing dialogue, consultations and other collaborations on a project basis. We work with several NGOs on a global and local level and we engage with them through training, corporate communication, formal gatherings, forums, events, reports and publications, memberships and partnerships hotline and call centres. We are also part of the World Business Council for Sustainable Development (WBCSD), the WeMeanBusiness coalition, and since participating in the UNFCCC COP21 in Paris, we continue to engage externally on our commitments on climate change adaptation and water, including our support to the Paris Agreement.</p> <p>On a local level, we support local NGOs that help address water risks in our manufacturing and agricultural supply chain. A sound example is our collaboration since 2017 with local suppliers, stakeholders and NGOs, such FAI (Fundacion Mexicana de Apoyo Infantil) in Mexico, as part of our efforts to improve the living and working conditions of migrant workers in tobacco growing areas we source from. Amongst others it includes the provision of access to safe drinking water, improved sanitation and hygiene (WASH). Furthermore, we also help address water risks locally through our charitable partnerships to support disaster preparedness and relief efforts.</p>
Other water users at a basin/catchment level	Relevant, always included	We strive to use our water optimally, taking into account the surrounding water basin context and water demand. Failure to include other water users could result in potential conflicts over water resources when water resources are limited in water stressed areas, particularly when related to the company's agricultural supply chain, For example, a lack of availability of water resources for all stakeholders/users at the watershed level could result in increased competition for water resources causing subsequent disruptions in agricultural production and leading to operational risks. Thus, other water users at a

		<p>basin/catchment level are considered relevant and they are factored through our company level risk assessments. PMI engages with them through a combination of methods, including ongoing dialogue, training, forums and events and other as necessary. Our approach to working with other water users is based on 3 principles - water preservation, innovation (better irrigation practices/less water intensive tobacco varieties), and engagement (water access, sanitation and hygiene (WASH)). We also consider other water users at the local level and work to retain our social license to operate. The interaction with local stakeholders is through our: i) Manufacturing operations - We joined the Alliance for Water Stewardship (AWS) in 2017 to better manage water within the local watersheds. One of the key elements of AWS certification is to understand local water risks and opportunities and engage with local stakeholders. For example, we organize at least two events during the certification process where we invite water authorities, neighbour factories or NGOs to discuss openly how to improve the local water situation. ii) Agricultural, especially tobacco supply chain – Based on our Good Agricultural Practices (GAP) program, we expect our suppliers to have a water conservation plan that takes into account the management of water for tobacco production to minimize adverse impacts to other users within water catchment areas. The plans also cover access to WASH services for local communities, workers, and their families in growing areas where lack of access is a high risk.</p>
Regulators	Relevant, always included	<p>To be able to operate, PMI needs to ensure compliance with water-related regulatory frameworks in all 31 countries where we manufacture our products. Integral part of our manufacturing sites' ISO14001 certification is the risk and opportunities assessment of each site, where regulators are always considered. Potential increase in taxes, changes in wastewater treatment permits rules, increased requirements for discharged water quantity and quality can have significant impact in our operating cost and permits to operate and that's why this stakeholder is considered relevant. This is particularly relevant for PMI, as 64% of our water withdrawals are from third parties which could face further regulations in the future. PMI engages regulators through a variety of methods including ongoing dialogue where appropriate and per local regulations, in training, formal gatherings, forums and events, reports and publications and consultations. For example, in our pilot RRP factory in Italy, we have developed a collaborative relationship with the local authority ARPAE. We engage with them via meetings and visits with an open and transparent attitude.</p>

		<p>Through discussion we became aware of the opportunity to apply for a temporary exemption for the limits of 3 parameters: COD BOD and total suspend solids on the wastewater we discharge to the sewage. Without this learnings and the efforts that we invested to improve our waste water treatment facility, we would have had an impact on our ability to operate, until the improvements were set up, resulting in losses in production volumes and extra cost.</p> <p>Other examples of engagement includes specific programs and trainings across our business units designed to meet and go beyond applicable environmental compliance requirements and reduce our water consumption. We have a consistent environmental and occupational health, safety and security management system ("EHSS") at all our manufacturing centers. We track compliance through our EHS Systems and regulatory radar screen.</p>
<p>River basin management authorities</p>	<p>Relevant, always included</p>	<p>Ensuring compliance and adherence to river basin management plans that can have a direct influence both in direct operations and PMI's agricultural supply chain. Engaging river basin management authorities is relevant for PMI as it can provide important insights on future water related taxes, management plans, regulations or other water related issues</p> <p>River basin management authorities are engaged through a variety of methods including ongoing dialogue and training, formal gatherings, forums and events, consultations and regular ad hoc visits. PMI combines results from these engagement activities with the annual assessment of its factories by ISO14001, allowing our sites to align with current and upcoming local river basin management regulations associated with water withdrawals and wastewater. We have also become a member of the Alliance for Water Stewardship to better understand how to conserve the watersheds where we operate. The AWS standard also requires sites to consider stakeholders' engagement and open dialogue to better understand their needs, including those of river management authorities. Our factory in Brazil was certified against the AWS Standard in March 2018.</p> <p>By the end of 2019, we had certified five more sites – in Italy, Portugal, Indonesia, Russia, and Turkey – as part of the program to certify all factories by 2025, with the first eleven targeted by 2020. This will allow us to stay ahead of any water-</p>

		regulatory frameworks dealing with water abstraction and discharge consents.
Statutory special interest groups at a local level	Relevant, sometimes included	<p>We believe a multi-stakeholder approach is key to addressing climate change and water security. In this context, statutory special interest groups are important since they can facilitate the dialogue between stakeholders and provide assistance regarding best water stewardship practices. When applying for the construction of a new factory, or when significant changes are due to an existing one, the permitting process, according to the EU regulation, might require open consultation from local community and NGOs (for example in Italy and Greece substantial modifications of the existing factories require the review of the environmental permit, and its publication to governmental website, where the “public” can have access and has the right raise objections. In the specific example both water resources management and withdrawals volumes and wastewater treatment and disposal are described in detail. Thus, statutory special interest groups are regarded as relevant and are engaged through a variety of ad hoc methods. For example, in 2017, we joined the Alliance for Water Stewardship (AWS). In March 2018, our Brazilian factory became the first factory in the country to be certified by AWS. We plan to have 11 factories certified by 2020; and all operations by 2025. Through this process, we consult with local stakeholders, which may include statutory special interest groups when appropriate.</p> <p>In 2019, PMI supported projects to protect and enhance natural resources, implement conservation agriculture, provide clean water, cater for food security, and improve the livelihoods of people living in rural communities. PMI is partnering with the USAID Malawi-Feed the Future, to diversify smallholder farmers’ production away from tobacco and into other food crops and have joined the Global Agribusiness Alliance. PMI’s Charitable Contributions program includes climate change adaptation and mitigation. In Mexico, we supported the Natural Areas and Sustainable Development Civil Partnership aiming at creating new business opportunities for small agricultural producers, increasing their resources management capacity, water availability and knowledge of eco-technology solutions. We signed up multi-stakeholder initiatives on environmental topics such as the Brazilian Business Commitment to Water Security, a coalition of over 20 major companies led by the Brazilian branch of WBCSD, and a partnership with tobacco growers to restore degraded riverbanks (Water Guardian Project).</p>

Suppliers	Relevant, always included	<p>Our suppliers are key partners in achieving our water reduction and stewardship goals. Failure to include suppliers would expose PMI to increased physical water risks and would prevent the company from achieving its overall sustainability targets including water related ones. Thus, they are regarded as relevant and factored into company level risk assessment initiatives through our Climate Change risk assessment, use of water risk tools, Good Agricultural Practices (GAP), Responsible Sourcing Principles (RSP) and engagement activities with suppliers (directly or through CDP Supply Chain).</p> <p>Suppliers are engaged through a variety of methods and projects including ongoing dialogue, surveys and questionnaires, training, corporate communications, formal gatherings, forums and events, memberships and partnerships, visits, reports and publications, hotline and call centres, consultations, contractual relationships, and other ad hoc activities. E.g. we developed our blue water footprint with Quantis in the last 2 years, including tobacco growing (farmers' irrigation, fertilizers and pesticides usage) (53%), supply chain (41%) and our manufacturing practices (6%). By engaging and working with suppliers, we are reducing our overall water footprint and increase their resiliency. Examples of how we partner: i) For tobacco-growing, under GAP, we expect our suppliers to have a water management plan including the management of water for tobacco production to minimize adverse impacts to other users within water catchment areas and WASH services access for local communities, workers, and their families.</p> <p>In 2019, PMI conducted its annual Local Risk Assessment, and shared results with all relevant tobacco suppliers. This action has the objective of advancing conversations in the topic of water risk mitigation, as well as providing additional advice or technical support as needed.</p> <p>Through "STEP" supplier due diligence program we are requesting suppliers to disclose on their annual consumption of water and unit of measure, monitoring of this consumption, and related reduction objectives.</p> <p>Suppliers are also considered in the risks and opportunities assessment at manufacturing site, according to the AWS standard. E.g., in our factory in Italy where we engage with the local water supplier HERA via meetings and visits with an open and transparent attitude, in order to assess together the risks related to our future increase on water consumption and work together the solutions.</p>
-----------	---------------------------	---

<p>Water utilities at a local level</p>	<p>Relevant, always included</p>	<p>We work closely with local water utilities to track and manage our water usage at large facilities. This is particularly relevant for PMI, as 64% of our water withdrawals and 65% of our discharges are from third parties which could face further regulations in the future.</p> <p>Failure to do so would expose PMI to water risks associated to lack of accurate data and potential misguide company decisions related to water expenditures or the accomplishment of water related targets. Where possible, we work to integrate water efficiency projects and reduce our footprint.</p> <p>We engage water utilities at a local level through data collection processes and exchanges in scheduled meetings to better understand future demands. PMI uses a water self-assessment tool to assess annually all our manufacturing centers serving as a great source for water saving initiatives. In 2017, we joined the Alliance for Water Stewardship (AWS). In March 2018, our Brazilian factory became the first factory in the country to be certified by AWS. We plan to have the 11 factories which ranked highest in our previous risk assessment certified by 2020; and all operations certified by 2025. Through this process, we engage and consult with local stakeholders, including the local water utilities.</p>
<p>Other stakeholder, please specify</p>	<p>Relevant, always included</p>	<p>We regularly conduct sustainability materiality assessments. During our 2019 refresh, we asked for input from a broad range of stakeholders on the topic of water. We engage with stakeholders on an ongoing basis in a number of ways. Key stakeholders include the scientific community, investors & shareholders, employees, the business community, media, civil society, farmers & farmworkers, local communities, suppliers, retailers, regulators & governments, and adult consumers. In 2018, we had aligned our work with the SDG's including SDG 14 which addresses Life Below Water and this year we made sure to kept it up to date in line with the refreshed sustainability materiality assessment. To date, we address both the direct and indirect impacts on water from PMI's operations. For example, litter from cigarette butts and packaging is an issue that comes under regular public scrutiny that could potentially negatively affect our brand. Much of the litter washes into the waterways and causes problems during rain events. In many of our markets, such as the Philippines, Japan and Switzerland, PMI actively supports programs and campaigns for responsible litter disposal.</p>

W3.3d

(W3.3d) Describe your organization's process for identifying, assessing, and responding to water-related risks within your direct operations and other stages of your value chain.

In 2015 PMI performed a comprehensive Climate Change risk assessment (CCRA; water risk due to climate change) of PMI operational sites and key supplier assets (e.g. ports & tobacco growing regions). This comprehensive risk assessment is updated annually through the use of various tools in the market including WRI Aqueduct and IPCC Projections. This assessment identifies material risks and opportunities using WRI indicators to assess risk levels factoring in the significance of the operations sites for the business; risks assessed comprise coastal and riverine flood, drought, baseline water stress and water quality.

The water risk scores were based on results of the Aqueduct Water Risk Atlas. The relevant water risk indicators for PMI were identified based on the type of operations sites. The indicators were selected to identify water risks that can result in potential impacts causing business interruption or affecting operational continuity. A site is considered at risk if any of the relevant indicators for a site is above the score of 3 (high) in the Aqueduct scoring scale. The analysis covers all PMI's assets and it continues to be expanded to cover a growing set of risks within our supply chain (for example water scarcity, extended droughts, changes in water quality and other). We complemented our understanding by conducting another study in 2017 and 2018 of our blue water footprint which is composed of tobacco farming practices (such as irrigation, fertilizers and pesticides usage) responsible for the 53%, rest of supply chain for the 41% and manufacturing activities for 6%.

From the results of the risk assessment we identified and prioritized:

- Drought: three factories in Europe are facing a high risk;
- Water stress: two of the above factories are located in a high risk areas;
- Riverine flood: one factory in Asia is in high risk area.

The evaluations of the identified water risks are reviewed by senior management and guide the strategy for the implementation of the mitigation actions. Specifically, the Senior Vice President Operations examines and monitors water-related issues, ensuring the integration of the results of risk and opportunity assessment and their management into business direction and strategies, and to form part of our annual and long-range plan, objectives, budget and performances appraisal processes. He receives updates on progress towards objectives and their achievement, in monthly meetings with the Operations Management Team reporting to him, and during quarterly functional reviews.

The water risk assessment takes place as follows across our value chain:

1. Manufacturing: Beyond compliance and water efficiency, we are looking at the factory within its watershed. In 2017, we joined the Alliance for Water Stewardship (AWS) & certified our Brazilian factory in March 2018. Based on the results of our water risk assessment we set the goal to certify 11 factories (ranked highest in water risk assessment) by 2020 and all our factories by 2025.
2. Supply chain: PMI has a sound system to identify water related risks within its tobacco supply chain. As part of the annual water risk assessment process, PMI undertakes a Global Water Risk Assessment (GRA) building on internal company methods, national databases and internationally recognized tools in the market (e.g. WRI Aqueduct). The purpose of the GRA is

to use globally available and comparable data to evaluate water risks at a high level. PMI collects data from farmers through the use of Water Insights surveys covering around 140 tobacco growing areas globally to improve its understanding of water use and materiality issues for all tobacco growers of PMI's supply chain. Additionally, we carry out a Local Risk Assessment (LRA) utilizing granular local data to highlight water-related risks and engage local stakeholders during the assessment. In 2019, the GRA was updated and LRAs were carried out for key suppliers in Canada, India, Mexico, Mozambique, North Macedonia, Philippines and Turkey using 17 different indicators to measure physical, regulatory and reputational water risks.

The mapping of the water related risks at local level allows for a better monitoring and an increased focus in the implementation of the GAP program. The outputs are used to inform the company's business, sustainability and sourcing strategies, to set objectives and targets where relevant to risk mitigation, as well as to develop water efficiency projects within our facilities or with strategic suppliers. In agriculture the risk is cross-referenced to the water applied that we monitor on an annual basis to highlight where are potential areas of action for risk mitigation through expenditures in local water-related initiatives. As results of these assessments in 2019, we implemented projects to reduce water consumption in Philippines and Indonesia, while additional efforts were dedicated towards more efficient water management practices in Brazil and Argentina.

W4. Risks and opportunities

W4.1

(W4.1) Have you identified any inherent water-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes, both in direct operations and the rest of our value chain

W4.1a

(W4.1a) How does your organization define substantive financial or strategic impact on your business?

PMI evaluates a "substantive impact" (e.g.: financial or strategic impact) based on a variety of factors and quantitative indicators, including but not limited to the potential impact on financial performance as well as other strategic factors that may affect PMI's efforts and/or delivery towards a smoke-free future, ultimately replacing cigarettes with RRP. The impacts reported as substantive strategic or financial impacts are defined as those identified and prioritized by management in our value chain, through key enterprise risks based on four risk dimensions: the impact a risk could have on the organization if it occurs, the likelihood a risk will occur, the velocity with which a risk would affect, the organization if it occurs, and the interconnectivity of a risk with other risks, that exceed defined thresholds at the corporate level.

As part of the Company's annual Integrated Risk Assessment (IRA) process, we have in place an extensive risk control program by which we assess the climate change physical risks including the water related ones. Specifically in our operations, locations with values exceeding \$30 million range are surveyed by engineers from our property insurer, who provide

recommendations to us on the magnitude of environmental risks, for example risk of flooding that could cause reduction or disruption in production capacity in specific locations, and the cost of management. Recommendations for risk management are given if the expected reduction in the financial impact of the risk exceeds the cost to comply by a factor of 10 or more. Internally, we focus on recommendations above the \$50 million range as management of identified risks can involve substantial capital expenditure and disruption to operations including our supply chain.

In 2020+ risk forecasting terms, in relation to our tobacco supply chain, we assumed as substantive risks those with a potential impact in excess of \$5 million or a raw material impact in excess of 1000 metric tons of tobacco leaves. This definition is applicable to PMI's agricultural supply chain.

For example, in our 2019 water risk assessment in our tobacco growing areas, risks like drought, flooding and cyclones and other severe weather events with a potential impact above \$5 million have been identified in Indonesia, the Philippines and Brazil.

W4.1b

(W4.1b) What is the total number of facilities exposed to water risks with the potential to have a substantive financial or strategic impact on your business, and what proportion of your company-wide facilities does this represent?

	Total number of facilities exposed to water risk	% company-wide facilities this represents	Comment
Row 1	4	1-25	Annually, our company's risk and opportunity identification and management process covers regulatory, reputational, physical climate, water, geopolitical and market issues. In 2015, we performed a comprehensive Climate Change risk assessment (CCRA) that highlighted risks for cyclone, floods or severe droughts and a list of factories to be considered as of high risk. Our Climate change risks and opportunities assessment was further aligned with the TCFD recommendations. The analysis is updated every year, and in early 2020 we conducted additional water risk assessment of physical water risks (water supply, drought, water stress, flood, water quality) using WRI Aqueduct.

W4.1c

(W4.1c) By river basin, what is the number and proportion of facilities exposed to water risks that could have a substantive financial or strategic impact on your business, and what is the potential business impact associated with those facilities?

Country/Area & River basin

Italy
Other, please specify
Samoggia and Reno

Number of facilities exposed to water risk

2

% company-wide facilities this represents

1-25

% company's total global revenue that could be affected

1-10

Comment

Annually, our company's risk/opportunity identification and management process covers regulatory, physical climate, water, geopolitical and market issues. In 2015, we performed a comprehensive Climate Change risk assessment (CCRA) that highlighted risks of cyclones, floods or severe droughts and a list of factories to be considered as of high risk. In the frame of our annual exercise, in early 2020 we conducted a water risk assessment on physical water risks, (water supply, drought, water stress, flood, water quality) using the WRI Aqueduct.

Country/Area & River basin

Indonesia
Other, please specify
Citarum river

Number of facilities exposed to water risk

1

% company-wide facilities this represents

1-25

% company's total global revenue that could be affected

1-10

Comment

Annually, our company risk/opportunity identification and management process covers regulatory, physical climate, water, geopolitical and market issues. In 2015, we performed a comprehensive Climate Change risk assessment (CCRA) that highlighted risks of cyclones, floods or severe droughts and a list of factories to be considered as of high risk. In the frame of our annual exercise, in early 2020 we conducted a water risk assessment on physical water risks, (water supply, drought, water stress, flood, water quality) using the WRI Aqueduct.

Country/Area & River basin

Poland
Wisla

Number of facilities exposed to water risk

1

% company-wide facilities this represents

1-25

% company's total global revenue that could be affected

1-10

Comment

Annually, our company risk/opportunity identification and management process covers regulatory, physical climate, water, geopolitical and market issues. In 2015, we performed a comprehensive Climate Change risk assessment (CCRA) that highlighted risks of cyclones, floods or severe droughts and a list of factories to be considered as of high risk. In the frame of our annual exercise, in early 2020 we conducted a water risk assessment on physical water risks, (water supply, drought, water stress, flood, water quality) using the WRI Aqueduct.

W4.2

(W4.2) Provide details of identified risks in your direct operations with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Area & River basin

Italy
Other, please specify
Samoggia and Reno

Type of risk & Primary risk driver

Physical
Increased water stress

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Water risk and opportunities assessment is undertaken at the site level to understand potential issues with regards to a shared and sustainable management of the water resources, following the AWS protocol and the ISO 14001 standard. At a global level PMI conducted a water risk assessment through the use of WRI Aqueduct and a Climate change risks and opportunities assessment following TCFD recommendations. These assessments aim to identify material risks and opportunities, which includes flood, drought, baseline water stress, water depletion and water quantity limitations risk

management and mitigation plans discussed with our insurers and local stake holders. From the risk assessment, PMI identified that its manufacturing facility in Valsamoggia (Italy) is directly exposed to potential disruptions in production capacity due to water stress and drought, as these indicators were identified as 'very high risk' according to results from PMI's risk assessment, estimating one week of water unavailability as a minimum threshold which could cause a potential substantive impact. In 2019, our RRP manufacturing facility in the Samoggia and Reno river basins was responsible for about half of PMI's total production of heated tobacco units (HTUs) and therefore is strategically significant for the business.

Timeframe

4-6 years

Magnitude of potential impact

Medium-high

Likelihood

More likely than not

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

1,400,000

Potential financial impact figure - maximum (currency)

11,000,000

Explanation of financial impact

We estimate the relative magnitude at the range of \$1.4 million to \$11 million in the medium to long term (4-6 years) for our operations based potential disruptions in production capacity

and current production data, as well as per our insurance's estimations, not having experience yet such an event.

PMI's range of potential financial impacts related to water impacts is developed by estimating potential losses related to minor and major business interruptions. This assessment is carried out on a per facility basis considering the total cost of business interruption per day based on production costs (excluding raw materials).

These costs mainly represent labour costs from business disruption, as production would not be able to continue. PMI's estimated range of financial impacts can be broken down as in the formula below; the actual number of days of business interruption will depend on the site's ability to recover from an event:

Potential financial impact (minimum): number of interruption days in minor event * cost of business interruption per day

Potential financial impact (maximum): number of interruption days in major event * cost of business interruption per day

Primary response to risk

Adopt water efficiency, water reuse, recycling and conservation practices

Description of response

PMI's response has been focused on reducing water dependency on water withdrawals through the implementation of water saving initiatives in our factory. Since 2018, PMI has implemented several water efficiency, reuse, recycling and conservation projects have been implemented in this which specifically aim to reduce water consumption and make the site more resilient to increased local water stress. In 2019 the factory in Italy decreased the water withdrawals by 21% vs. 2018 and increased the use of recycled water by 65%. More specifically PMI has focused on investing in the following interventions:

- use reverse osmosis on treated recycled water in boilers and cooling towers;
- Installation of SR-CT for Cooling Tower Water Treatment;
- reuse of treated wastewater in boilers;
- boiler blowdown cooling with re-used water;
- increase potable water use efficiency by implementing water plant saving settings
- Pilot Cold Plasma System in tobacco processing to replace water scrubbers.

In addition to those technical measures the site got certified according to the AWS protocol in 2019, aiming to further assess and mitigate these risks.

Cost of response

2,900,000

Explanation of cost of response

The cost of response refers to the investment costs for the design and implementation of the initiatives in 2018 (\$1,200,000) and (\$1,700,000) in 2019. Specifically, in 2019, PMI implemented several technologies, aiming to reduce water withdrawals. The cost of response corresponds to the design and implementation of all these:

- Reuse of treated wastewater in boilers: installation of SRCT systems that use electrolysis technology to reduce blowdown frequency and save water
- Boiler blowdown cooling with re-used water: the osmotic water produced in the WWTP is recycled for cooling purposes in boiler blowdowns
- Implementation of plant saving settings: process water conductivity standardization, boiler blowdown optimization and standardization on water utilities
- Cold Plasma System in tobacco processing (Pilot Phase): an electricity-based air emissions treatment technology replaced the washing towers (scrubbers)
- Electrodialysis Reversal System: measurement and validation plan to confirm the EDR capability to treat water according to washing specifications, define the equipment performance and validate operative cost assumptions.

PMI re-evaluates the need for further investments on an annual basis and updates its

budget to manage water related risks in all factories, including in Italy.

Country/Area & River basin

Indonesia
Other, please specify
Citarum

Type of risk & Primary risk driver

Physical
Flooding

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Results from PMI's water footprint indicate that manufacturing facilities in Indonesia are the company's second most water intensive in terms of fresh water consumption. We conducted a comprehensive Climate Change risk assessment (CCRA) and reviewed water risk due to climate change, for corporate and asset level physical risks and opportunities up to 2025-2030 of PMI and key supplier assets in 2015. We use the WRI Aqueduct and IPCC Climate Change Projections. On an asset level, we conduct environmental risk assessments (ISO14001) to identify material risks and opportunities, which includes flood risk management and mitigation plans discussed with our insurers. Through these assessments we identified the primary risk drivers in our Indonesian operations are flooding and cyclones. Potential impacts from cyclones could cause loss and/or disruption of production in manufacturing plants, warehouses, 3rd party operations, suppliers and ports, which could have a directly impact PMI's operations. The indicated facility in Karawang was responsible for the production of around 9% of PMI's total production of cigarettes. This facility was included due to its relevance for the business and the potential impacts that could be caused by floods and cyclones.

Timeframe

4-6 years

Magnitude of potential impact

Medium-low

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

400,000

Potential financial impact figure - maximum (currency)

3,500,000

Explanation of financial impact

We estimate the relative magnitude at the range of \$0.4 million to \$3.5 million in medium to long term (4-6 years) for our Indonesian operations based on potential disruptions in production capacity and current production data, as well as per our insurance's estimations, although actual losses due to flood cases remained much below this threshold.

PMI's range of potential financial impacts related to water impacts is developed by estimating potential losses related to minor and major business interruptions. This assessment is carried out on a per facility basis considering the total cost of business interruption per day based on production costs (excluding raw materials). These costs mainly represent labour costs from business disruption, as production would not be able to continue. PMI's estimated range of financial impacts can be broken down as in the formula below; the actual number of days of business interruption will depend on the site's ability to recover from an event:

Potential financial impact (minimum): number of interruption days in minor event * cost of business interruption per day

Potential financial impact (maximum): number of interruption days in major event * cost of business interruption per day

Primary response to risk

Develop flood emergency plans

Description of response

External providers are contracted annually to develop flood emergency plans that mitigate flood and business continuity risks identified from the water risk assessment. External providers carry out additional flood risk assessments at the site level to further understand how sites are vulnerable to local flooding events. This is followed by the development of flood and cyclone emergency plans which are specific to our facilities' conditions in Indonesia and addressing the risks of flooding and cyclones. In Indonesia Karawang factory is located in the Industrial Estate Area in West Java province. For this site PMI's emergency plan is also covered by the industrial estate's emergency plan. PMI operates another factory in Sukorejo, which is located in East Java. As part of the PMI Business Contingency Plan, both manufacturing production facilities are linked, and Karawang's production can be temporally discontinued, in case of flood and cyclones, and be transferred to Sukorejo. PMI's insurance and business continuity management plans are informed through this process and designed to mitigate the impacts associated with disruptions that may result from flooding events.

PMI further mitigates these risks by having widely distributed operations across the world, which reduce impacts from individual facilities. This process was applied in the

indicated manufacturing facility in Indonesia.

Cost of response

1,000,000

Explanation of cost of response

The cost of response (\$ 1 million) is estimated based on recurring cost of external providers used to assess flood and business continuity risk annually, and related staff costs. Flood risk assessments are undertaken at the site level to understand how vulnerable sites are to cyclones/local flooding events. These assessments provide a better understanding on the scale and nature of this risk and our insurance and business continuity management plans are designed to mitigate the impacts from short and medium-term (0-5 years) flooding events.

Country/Area & River basin

Poland

Wisla

Type of risk & Primary risk driver

Physical

Drought

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Drought risk assessments are undertaken at the site level to understand how vulnerable sites are to local drought events through the use of WRI Aqueduct and IPCC Climate Change Projections. We conduct environmental risk assessments in the frame of ISO14001 to identify material risks and opportunities, which include drought risk management and mitigation plans. From the Global risk assessment, PMI identified that its manufacturing facility in the Wisla basin (Poland) is directly exposed to potential disruptions in production capacity due to drought. This indicator has been identified as 'high risk' according to the results from PMI's risk assessment, and provided that the sole water source of the site is the third party provider, which, in case of drought, will have to prioritize other users (i.e.: mainly households), in the city of Cracow where the site is situated.

We estimate one week of water unavailability as a minimum threshold which could cause a potential substantive impact.

In 2019, our manufacturing facility in the Wisla basin was responsible for the production of around 10% of PMI's total production of cigarettes. This facility was included due to its relevance for the business based on its production capacity.

Timeframe

More than 6 years

Magnitude of potential impact

Medium-low

Likelihood

Unlikely

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

800,000

Potential financial impact figure - maximum (currency)

6,700,000

Explanation of financial impact

We estimate the relative magnitude at the range of \$0.8 million to \$6.7 million in the long term (more than 6 years) for our operations based on potential disruptions in production capacity and current production data, as well as per our insurance's estimations, not having experience yet such an event. PMI's range of potential financial impacts related to water impacts is developed by estimating potential losses related to minor and major business interruptions. This assessment is carried out on a per facility basis considering the total cost of business interruption per day based on production costs (excluding raw materials). These costs mainly represent labour costs from business disruption, as production would not be able to continue. PMI's estimated range of financial impacts can be broken down as in the formula below; the actual number of days of business interruption will depend on the site's ability to recover from an event:

Potential financial impact (minimum): number of days in minor event * cost of business interruption per day

Potential financial impact (maximum): number of days in major event * cost of business interruption per day

Primary response to risk

Adopt water efficiency, water reuse, recycling and conservation practices

Description of response

PMI's response has been focused on reducing water dependency on water withdrawals through the implementation of water saving initiatives in our factory. Since 2013, PMI has implemented several water efficiency, reuse, recycling and conservation projects which specifically aim to reduce water consumption and make the site more resilient to droughts. In 2019 the factory in Poland decreased the water withdrawals by 4% vs. 2018. More specifically PMI has focused on investing in the following interventions:

- simplification of Burley tobacco Processing treatment;
- modernization of main Reversed Osmosis station;

- aerators in sinks and showers installation in change rooms;
- change in the suction vapor from pipe dryer;
- reverse Osmosis unit modernization;
- reduction of water consumption by HAAR and scrubber in tobacco expansion plant.

Cost of response

68,000

Explanation of cost of response

The cost of response refers to the investment costs (\$68,000) for the design and implementation of the initiatives since 2013 as described above (i.e. the cost is one unique figure referring to the total program budget and not calculated). The main initiative in 2019 was the reduction of water use in the process and the air emissions washing tower (scrubber) in tobacco expansion process. The cleaning frequency of was reduced from weekly to once every 3rd week and we installed flowmeters on scrubbers, adjusted to minimum water flow that will allow the good operation and performance of the equipment. These interventions during 2019 did not require any investment, nevertheless generated additional water savings.

PMI re-evaluates the need for further investments on an annual basis and updates its budget to manage water related risks in all factories, including in Poland.

Country/Area & River basin

Italy

Other, please specify

Reno

Type of risk & Primary risk driver

Physical

Increased water stress

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Water risk and opportunities assessment is undertaken at the site level to understand potential issues with regards to a shared and sustainable management of the water resources, following the ISO 14001 standard. At a global level PMI conducted a water risk assessment using of WRI Aqueduct and a climate change risks and opportunities assessment following TCFD recommendations. These assessments aim to identify material risks and opportunities, which include flood, drought, baseline water stress, water depletion and water quantity limitations risk management and mitigation plans discussed with our insurers and local stake holders. From the risk assessment, PMI identified that its manufacturing facility in Zola Predosa (Italy) is directly exposed to potential disruptions in production capacity due to water stress and drought as these

indicators were identified as 'very high risk' according to results from PMI's risk assessment, which could impact PMI's manufacturing operations during a dry year. This factory relies 100% on a 3rd party water provider that might have to prioritize other users (i.e.: mainly households), in case of water unavailability. This heated tobacco units manufacturing center is important in PMI operations, not for its manufacturing capacity, but for the capability to evaluate manufacturing optimization practices, including the ones related to water use, and therefore it is strategically significant for the business.

Timeframe

More than 6 years

Magnitude of potential impact

Medium-high

Likelihood

More likely than not

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

15,000

Potential financial impact figure - maximum (currency)

120,000

Explanation of financial impact

We estimate the relative magnitude at the range of \$15 thousand to \$120 thousand in the long term (more than 6 years) for our operations based on potential disruptions in production capacity and current production data, as well as per our insurance's estimations, not having experience yet such an event.

PMI's range of potential financial impacts related to water impacts is developed by estimating potential losses related to minor and major business interruptions. This assessment is carried out on a per facility basis considering the total cost of business interruption per day based on production costs (excluding raw materials). These costs mainly represent labour costs from business disruption, as production would not be able to continue. PMI's estimated range of financial impacts can be broken down as in the formula below; the actual number of days of business interruption will depend on the site's ability to recover from an event:

Potential financial impact (minimum): number of interruption days in minor event * cost of business interruption per day

Potential financial impact (maximum): number of interruption days in major event * cost of business interruption per day

Even though the indicated financial impact figure is initially below our threshold for

substantive financial impact, the risk has been evaluated as substantive due to the manufacturing facility strategic relevance and connection to the manufacturing of RRP products.

Primary response to risk

Amend the Business Continuity Plan

Description of response

PMI has a business continuity plan in place to prevent financial impacts from increased water stress that could lead to reduction or disruptions in production capacity in its manufacturing facility in Reno, Italy. PMI's business continuity plan involves a temporary shift of production from our manufacturing facility in Reno, to an alternative approved facility in Europe which is already manufacturing the same products. As PMI's manufacturing operations in Reno are relatively small (these represent less than 1% of the total PMI Heated tobacco units (HTU) production), this operational shift could be accomplished in a very short period of time (less than two months), which would prevent substantive financial impacts in the event of business interruptions materializing. PMI's alternative location has been assessed in terms of water risks and is not expected to be impacted by drought, water stress, floods or any other water related disruptions in the long term, as per the results of PMI's risk assessment process using the WRI Aqueduct and IPCC Climate Change Projections. PMI's current plant considers a reallocation of production of up to one year, however it could assess shifting operations permanently if results from future water risks assessments require a different response.

Cost of response

500,000

Explanation of cost of response

The cost of response (\$ 500,000) is estimated based on the expected increases in production costs (\$/ volume of production) associated to shifting production to PMI's alternative approved facility in Europe, for an estimated period of one year. The expected increases would be linked to higher operational costs of the alternative facility, mainly due to higher labour costs.

W4.2a

(W4.2a) Provide details of risks identified within your value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Area & River basin

Indonesia

Other, please specify

Citarum River Basin & Brantas River Basin

Stage of value chain

Supply chain

Type of risk & Primary risk driver

Physical

Other, please specify

Drought

Primary potential impact

Supply chain disruption

Company-specific description

Physical risks due to climate change could have adverse impacts both on quality and yield of the crops we use, such as tobacco leaf and cloves. Suppliers of tobacco leaf in Indonesia are exposed to physical climate change risks, with drought and flooding being most critical. Tobacco leaf growing is strongly influenced by physical climate change such as changes in temperature and precipitation. Specifically, in the markets where we source from located in the tropics and subtropics, and more vulnerable to climate change impacts, changes in precipitation patterns (too much or too little rain) could impact PMI's sourcing strategy due to crop losses, leaf quality degradation and supply chain disruptions. Clove is an essential raw material for PMI to use in our local kretek brands. Indonesia produces over 70% of the world's cloves. Clove production solely depends on rainfall for its water needs, making it highly reliant on well distributed rainfall during the growing season. Clove yields fluctuate, with harvests varying up to 60% over a 4-year cycle. Climate changes causing conditions such as prolonged dry season and extreme rain events, which could impact clove growing areas and be detrimental to plant productivity and cause yield volatility. Combined these factors could result in significant crop losses for our suppliers, decreasing farmers' revenue and reducing the supply of tobacco and clove, as it has been experienced in the past particularly during El Nino events. Reduced availability could drive price increase, impacting PMI's manufacturing operations and business directly in relation to the fact that PMI is one of the biggest kretek cigarettes producer in Indonesia.

Timeframe

More than 6 years

Magnitude of potential impact

Medium

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

5,000,000

Potential financial impact figure - maximum (currency)

18,000,000

Explanation of financial impact

The potential financial impact range is based on a long-term assessment of costs from physical climate change risks related to drought for the specific case of Indonesia. The lower range derives from our comprehensive climate change risk assessment tool combined with the threshold defined for the substantive financial impact, resulting in an 8% estimate (applied either to the sourced volume or spend). The upper range reflects an estimation of 28% based on our modeling projection, based on our climate change risk assessment tool (CCRA based on the IPCC and RCP8.5), of the expected impact due to climate change (worst case scenario) for this country. We estimated the relative magnitude between \$5-18 million per year while we foresee this risk in the short to long-term (>6 years) for the Indonesian growers due to supply chain disruptions arising from drought and flood events during the growing season and combining estimated costs due to disruption from crop losses, quality impacts and supply chain restrictions.

Primary response to risk

Supplier engagement

Promote the adoption of sustainable irrigation practices among suppliers

Description of response

As part of our tobacco procurement strategy, we require all tobacco suppliers to follow our Good Agricultural Practices, which provide measures to mitigate water related risks through the adoption of climate smart agriculture practices. We implement globally our Local Risk Assessment (LRA) methodology utilizing granular local data to highlight water-related risks and engaging local stakeholders including tobacco suppliers. PMI utilizes the LRA results to implement initiatives with farmers to improve agricultural resiliency to flooding and drought such as the case in Indonesia where the results of the 2018 LRA led to the planning and implementation of interventions in 2019. Focus trial projects to mitigate the effects of drought impacts on cultivated crops were deployed in clove and tobacco growing areas. In particular, drip irrigation systems have been tested with farmers in clove production to increase resiliency, reduce dependency on rainfall and avoid productivity losses. Another example is the improved water access through the installation of deep wells in a tobacco growing area to ensure the continuous availability of water for crop irrigation and human consumption, in collaboration with our local supplier, to avoid potentially negative impacts to the crop due to changing weather patterns, supported by a thorough investigation of the deep well's impact on the groundwater level.

In order to ensure business continuity, PMI has substantial inventories of tobacco leaf which can help mitigate short to medium term impacts (up to 5 years).

Cost of response

200,000

Explanation of cost of response

The cost of response is based on the set yearly budget \$0.2M (i.e. we set a single amount and it is not possible to provide a breakdown) allocated in 2019 to environmental projects (mainly related to climate change, water security and biodiversity) under the Good Agricultural Practices program implementation in Indonesia. The engagement with tobacco and clove suppliers to trial improvements in crop management practices in Indonesia it is included in the cost of response. The expenditures represent approx. 4% of the 2019 global GAP budget. We have engaged with our tobacco suppliers to improve crop management practices and are strengthening our supply chain for tobacco at an overall cost of several tens of millions of US\$ (represented by the entire GAP budget). Similar yearly investment is expected over the next 10 years considering projected climate change related impacts and the potential scale-up of current projects.

Country/Area & River basin

Brazil
Rio Prado

Stage of value chain

Supply chain

Type of risk & Primary risk driver

Physical
Severe weather events

Primary potential impact

Supply chain disruption

Company-specific description

In the short to long term most of PMIs sourcing regions face risks due to physical climate change events, such as cyclones, floods and others, potentially affecting our tobacco suppliers' capability to deliver on contracted volumes globally, e.g. in Brazil, which is among PMI's top 15 tobacco origins. Changes in precipitation patterns and extreme variability in weather patterns could affect the yield, quality and availability of the tobacco crops, triggering a substantive risk in case the potential financial impact is above our threshold (1000 metric tons of tobacco leaves or \$5.0 million), changing our sourcing plans and increasing operational costs, affecting PMI manufacturing operations and business directly. In 2019 tobacco volumes were significantly impacted by extreme weather events such as flood, hail, and extreme rainfall, causing relevant crop losses to contracted farmers, e.g. in Brazil, where over 1,000 ha of production in Northeast and South regions were impacted in 2019 alone due to hail, drought and excess rain. Extreme rainfall in the fields may require pumping of excess water; while extreme droughts could require long-term irrigation, both of which would increase tobacco production costs above our substantive financial impact threshold. Changes in precipitation patterns could also affect local logistics, with extreme precipitation events potentially leading to inaccessibility of road networks, disrupting the delivery of tobacco.

Timeframe

More than 6 years

Magnitude of potential impact

Medium

Likelihood

More likely than not

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

1,000,000

Potential financial impact figure - maximum (currency)

6,500,000

Explanation of financial impact

The potential financial impact range is based on a long-term assessment of costs from physical climate change risks related to extreme weather events in our tobacco origins in Brazil in a given year. Based on previous years' data on crop losses due to extreme weather events, which could lead to decrease of revenues for our farmers from reduced production capacity, combined with our comprehensive climate change risk assessment tool, the range of potential financial impact is derived. Setting the basis as PMI threshold for substantive financial impact (1,000 metric tons of tobacco leaves or \$5.0 million) for the specific case of Brazil the lower range results in an estimate 3% (of the sourced volume or spend). The upper range reflects an estimation of 10% (of the sourced volume or spend) based on historical crop loss data (actual impacts reported) and our modeling projection. We estimated the relative magnitude at around \$1-6.5M per year while we foresee this risk in the short to long-term (>6 years) for the Brazilian growers due to supply chain disruptions arising from extreme weather events such as excessive rain fall, hail and drought, and combining estimated costs due to disruption from crop losses, quality impacts and supply chain restrictions.

The costs' estimation takes in account the above factors, however, due to their inter-correlation, our modelling provides a bottom and top range.

Primary response to risk

Supplier engagement

Promote adoption of waste water management procedures among suppliers

Description of response

PMI's operations and supply chain are globally spread mitigating the effects of severe climatic disruption, and business continuity management plans are designed to mitigate the consequence of supply chain interruption and disruption. We have a thorough risk

management process to inform our long-term business planning through different assessments (e.g. water-related risk assessments and Good Agricultural Practices program (GAP) assessments including soil health assessment). The results of these assessments support business decisions, for example internal investments in soil conservation practices among suppliers managed through dedicated trainings and technical support at farm level. Furthermore, PMI collaborates with its suppliers and engages with local communities towards water-related risks mitigation and resiliency. In 2019 we updated our global water risk assessment and performed additional targeted local water risk assessments in specific tobacco growing areas to better understand our exposure to changes in water security and fine-tune our water stewardship strategy to mitigate the risk in our tobacco supply chain. .In 2019, projects were implemented in Brazil on water source protection and landscape conservation practices related to tobacco farming by engaging farmers into creating vegetation buffers and physical protection barriers around water sources within their farmland, contributing to increasing the resilience of the local agricultural system and protecting soil health, in response to increasing occurrence of extreme weather events.

Cost of response

350,000

Explanation of cost of response

The cost of response is based on the yearly budget allocated in 2019 to environmental projects (mainly related to climate change, water security and combat deforestation) under the Good Agricultural Practices program implementation in Brazil, accounting for approx. \$350,000 in internal investments (i.e. the cost is one unique figure referring to the total project budget and not calculated). In 2019 projects were implemented in Brazil on water source protection and landscape conservation practices related to tobacco farming, contributing to increasing the resilience of the local agricultural system, in response to increasing climate change effects. PMI's investment in these initiatives in Brazil are included in the cost of response and represented approx. 8% of the global 2019 expenditure in environmental projects. Furthermore, PMI continued investing in research and trial of flood tolerant seed varieties, while adjusting our procurement patterns, relocating tobacco crop growing areas and our substantial tobacco leaf inventories, support mitigating short-term impacts.

An annual budget (i.e. the cost is one unique figure referring to the total project budget and not calculated) is allocated to initiatives to promote the adoption of improved and innovative practices by the farmers in our supply chain, similar yearly expenditure is expected over the next 10 years.

Country/Area & River basin

Philippines

Other, please specify

Marikina river basin & San Juan river basin

Stage of value chain

Supply chain

Type of risk & Primary risk driver

Physical

Other, please specify

Drought, flooding and cyclones

Primary potential impact

Supply chain disruption

Company-specific description

Based on GermanWatch's annual Climate Risk Index (2020), the Philippines is in the top 5 countries most affected by climate change impacts (including cyclones and flooding) by 2018 resulting to an average loss of \$3.1 billion in purchasing power parity to the country from 1999 - 2018. The supplies and quality of tobacco leaf in Philippines, one of the top 15 PMI's tobacco sourcing countries, and supply chain manufacturing disruptions influence PMI's production and sourcing strategy, potentially posing a substantive financial impact (above PMI's threshold of 1,000 metric tons of tobacco leaves or \$5 million), considering volumes sourced and likelihood of extreme weather events that affect the tobacco growing areas in the country. Tobacco leaf growing is strongly influenced by physical climate change such as occurrence of drought and floods. Yield, quality and availability of the tobacco crop could be influenced by changes in precipitation and periods of drought. This could change our access to tobacco supplies, impacting our crop buying pattern and increasing operational cost, affecting PMI manufacturing operations and business directly.

Timeframe

More than 6 years

Magnitude of potential impact

Medium

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

3,000,000

Potential financial impact figure - maximum (currency)

7,000,000

Explanation of financial impact

The potential financial impact range is based on a long-term assessment of costs from physical climate change risks related to drought, flooding and cyclones for the specific

case of the Philippines. The lower range derives from our comprehensive climate change risk assessment tool combined with the threshold defined for the substantive financial impact, resulting in a 16% estimate (applied either to the sourced volume or spend). The upper range reflects an estimation of 32% based on our modeling projection of the expected change for this country with climate change (worst case scenario). We estimated the relative magnitude between \$3-7 million per year while we foresee this risk in the short to long-term (>6 years) for the Filipino growers due to supply chain disruptions arising from physical risks such as drought, flooding and cyclones, and combining estimated costs due to disruption from crop losses, quality impacts and supply chain restrictions.

Primary response to risk

Supplier engagement

Promote the adoption of sustainable irrigation practices among suppliers

Description of response

As part of our procurement strategy, we require all tobacco suppliers to follow our Good Agricultural Practices, which provide measures to mitigate water related risks, through the adoption of climate smart agriculture practices. We implement globally our Local Risk Assessment (LRA) methodology utilizing granular local data to highlight water-related risks and engaging local stakeholders including local Leaf suppliers. PMI utilizes the LRA results to implement initiatives with farmers to improve agricultural resiliency to flooding and drought such as the case in the Philippines where the results of the LRA performed in 2019 led to the planning and implementation of interventions. A good example is the irrigation viability project to ensure the lack of negative impact due to water discharge following irrigation in the growing stage of tobacco cultivation. It addresses water availability and quality at local level, mitigating potential negative impacts due to drought, flood and cyclones. In order to ensure business continuity, PMI has substantial inventories of tobacco leaf which can help mitigate short term impacts.

Cost of response

110,000

Explanation of cost of response

The cost of response is based on the yearly budget allocated to the Philippines in 2019 for environmental projects (mainly related to climate change, water security and biodiversity) under the Good Agricultural Practices program, accounting for approx. \$110,000 in internal investment (i.e. the cost is one unique figure referring to the total project budget and not calculated). The engagement with tobacco suppliers to drive improvements in crop management and environmental protection practices in the Philippines are included in the cost of response and represented approx. 2% of the global 2019 expenditure in environmental projects) of the 2019 GAP budget. In 2019 projects were implemented in the Philippines on water source protection, water management practices and landscape conservation practices related to tobacco farming, contributing to increasing the resilience of the local agricultural system, in response to increasing physical risks such as drought, flood and cyclones.

W4.3

(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes, we have identified opportunities, and some/all are being realized

W4.3a

(W4.3a) Provide details of opportunities currently being realized that could have a substantive financial or strategic impact on your business.

Type of opportunity

Efficiency

Primary water-related opportunity

Improved water efficiency in operations

Company-specific description & strategy to realize opportunity

Opportunities exist to improve water efficiency in our operations. Improving water efficiency means that less water withdrawal volumes are required for the same production unit volume. A lower water consumption would improve PMI resilience especially in the locations where we operate which are facing water related issues such as water availability and water quality, and could generate additional financial benefit, when the payback period of investment costs of water efficiency interventions are covered.

As PMI is aiming to increase the production of RRP, the company sees improved water efficiency as a strategic priority, especially due to the fact that our RRP require approximately 4 to 5 times more water per unit of product than conventional products and water efficiency is a relevant opportunity to reduce this ratio. As more production lines will be converted in the future to RRP, the technological and process know-how acquired from the successfully implemented solutions will become an asset for the company and the financial savings will grow with a multiplicative factor.

For this reason, PMI is aiming to optimize all new processes by increasing water recycling and defining specific water quality by use. To seize these opportunities, PMI is implementing technologies such as reverse osmosis and EDI, and a series of initiatives to reduce water use. In 2019, PMI implemented other initiatives to reduce water use and increase water recovery and our average water consumption decreased from 5.35 m³ in 2010 to 4.74m³ of water for every million units of product equivalent. As the new manufacturing process matures, we are incorporating new technologies to recycle and reuse water to limit the increase of water discharge. It should take us around 1-3 years to realize these opportunities. Our improvements in water efficiency at PMI manufacturing facilities are driven by a water withdrawal reduction target. In 2019 PMI implemented 16 water efficiency projects across its manufacturing operations. An example of this is the Cold Plasma air emissions System (Pilot Phase) in RRP factory Italy, which aims to replace water for tower washing operations with an electricity-based

technology. This project is expected to save up to 14,510 m3 per year.

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Low-medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

2,000,000

Potential financial impact figure – maximum (currency)

3,000,000

Explanation of financial impact

Results from PMI's water footprint assessment carried out by Quantis indicate that potential financial savings linked to water efficiency are around US\$2 - 3 million in the next 1 - 3 years. The estimates are calculated through direct financial savings that would be experienced by PMI once investment costs of water efficiency interventions are covered.

The Quantis update of the water footprint of our RRP will provide us with a better understanding of opportunities on how to increase water efficiency. In our industry, the potential financial impact that could result by the direct cost of water is medium-low.

Type of opportunity

Resilience

Primary water-related opportunity

Increased resilience to impacts of climate change

Company-specific description & strategy to realize opportunity

Opportunities exist to increase PMI's resilience to the impacts of climate change from direct operations. PMI business objective is to achieve our smoke free vision, and therefore over time production of RRP will increase. Our RRP production requires approximately 4 to 5 times more water per unit of product than conventional cigarettes therefore the company will not only need to increase efficiency within its operations, but also ensure that it is resilient to impacts of climate change such as flooding, droughts, water stress, extended heatwaves and others that could impact its manufacturing operations.

PMI's strategy is to increase the amount of recycled water in its operations, to be less

dependent on water withdrawals and increase the company's resilience. In 2019 120,000 cubic meters of water were recycled internally (vs 73,000 in 2018), with further increments planned for 2020. PMI implemented 10 projects to increase the use of recycled water in Europe, Asia and Latin America. These will be replicated at other sites in the future.

In March 2018, our pilot factory became the first factory in Brazil to be AWS certified, and we are expanding its application across our global operations. Until the end of 2019, we certified another 5 sites according to the AWS Standard– in Italy, Portugal, Indonesia, Russia, and Turkey – as part of the program to certify all factories by 2025, with the first eleven targeted by 2020. The AWS certification process supported the identification of risks and opportunities, the management of projects implementation as well as the engagement with local communities and stakeholders on water issues.

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

1,000,000

Potential financial impact figure – maximum (currency)

2,000,000

Explanation of financial impact

The cost of AWS certification varies, however based on cost of AWS assessments and certification audits, it could cost more than \$8.5 thousands per factory. We do see this as a long-term investment that will increase our resilience to water risks due to climate change and it is difficult to determine exactly how much this will save PMI. Based on potential water savings analyzed and projected by our sites as well as potential investments, we estimate this to be around \$1,000,000 for all our operations until 2025. In addition, the AWS process of consulting local communities and stakeholders on water issues helps retain our social license to operate which has a high value even though not quantifiable in dollar terms. We use here \$1,000,000 as a proxy until we will have an internal specific valuation of those non-monetary opportunities.

Type of opportunity

Resilience

Primary water-related opportunity

Increased supply chain resilience

Company-specific description & strategy to realize opportunity

PMI estimated that above 90% of its water footprint can be linked to its agricultural supply chain, therefore it is there that the biggest margins for reducing and managing risks related to water issues are. With the risk monitoring system in place, both at global and local levels, combined with the annual water related data collection at farm level, we have access to reliable data to support business decisions towards implementing interventions to improve local conditions within the supply chain and increase the resilience of farming communities linked to our operations. A more resilient supply chain, especially in relation to water conditions in the watershed can lead to more continuity in the business, better capabilities in tackling extreme events and conditions, and more efficiency in the usage of resource water for tobacco growing. By increasing supply chain resilience, PMI is expecting to improve farmers' conditions, and to prevent physical climate risks such as droughts, extended heatwaves and others from impacting the production of raw materials. PMI's strategy has focused on establishing GAP as a standard for suppliers and providing technical assistance to partners in the supply chain to prevent and/or mitigate water risks from materializing. To seize these opportunities, PMI yearly assesses its water risks within its supply chain and shares results with key suppliers. In 2019 we extended the roll out of our local water risk assessments in collaboration with our suppliers in seven designated areas in Canada, India, Mexico, Mozambique, North Macedonia, Philippines and Turkey. PMI uses the results to implement initiatives on irrigation and soil conservation practices with farmers to improve agricultural resiliency to water-related negative impacts such as flood and drought. Collective action with our tobacco suppliers and NGOs includes watershed management, e.g. in Brazil the development of drought and flood tolerant seed varieties, as well as access to water, sanitation, and hygiene (WASH) services for farmers and their workers, e.g. in Mozambique. By increasing supply chain resilience, PMI is expecting to improve farmers' conditions, and to prevent physical climate risks such as droughts, extended heatwaves and other water-risks from impacting the production of raw materials, which could impact PMI's business.

Estimated timeframe for realization

More than 6 years

Magnitude of potential financial impact

Low-medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

3,000,000

Potential financial impact figure – maximum (currency)

12,500,000

Explanation of financial impact

Sustainable water and irrigation management has a positive effect on crop yield and helps minimize uncertainty in supply. PMI estimates potential financial impacts to be between \$3-12,5 million with long-term impacts (>5 years). This estimation is done by using financial information from gains in efficiency and crop productivity generated by the implementation of best in class water management practices, among which drip irrigation and drought resistant seed varieties, to avoid crop losses and improve yield. PMI's previous water related projects in its supply chain, as well as data annually gathered through the GAP program (for example, baselines on water practices as well as potential for development of water projects) are further contributing to informing decisions and raising awareness to deliver better results.

W5. Facility-level water accounting

W5.1

(W5.1) For each facility referenced in W4.1c, provide coordinates, water accounting data, and a comparison with the previous reporting year.

Facility reference number

Facility 1

Facility name (optional)

IT (PM MTB RRP GF)

Country/Area & River basin

Italy

Other, please specify

Samoggia and Reno

Latitude

44.55151

Longitude

11.16038

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

433.18

Comparison of total withdrawals with previous reporting year

Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

433.18

Total water discharges at this facility (megaliters/year)

186.94

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

186.935

Total water consumption at this facility (megaliters/year)

246.25

Comparison of total consumption with previous reporting year

Higher

Please explain

The water consumption increased from 227.72 megaliters to 246.25 megaliters resulting in a 8% increase.

Facility reference number

Facility 2

Facility name (optional)

IT (PM MTB RRP ZP)

Country/Area & River basin

Italy

Other, please specify

Reno

Latitude

44.49783

Longitude

11.23614

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

70.8

Comparison of total withdrawals with previous reporting year

Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

70.8

Total water discharges at this facility (megaliters/year)

23.29

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

23.29

Total water consumption at this facility (megaliters/year)

47.51

Comparison of total consumption with previous reporting year

Much higher

Please explain

The water consumption increased from 31.83 megaliters to 47.51 megaliters resulting in a 49% increase, when the production volume increase was more than double (100% increase)

Facility reference number

Facility 3

Facility name (optional)

Philip Morris Indonesia Karawang

Country/Area & River basin

Indonesia

Other, please specify

Citarum

Latitude

-6.35877

Longitude

107.28877

Located in area with water stress

No

Total water withdrawals at this facility (megaliters/year)

197.11

Comparison of total withdrawals with previous reporting year

Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

1.91

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

195.2

Total water discharges at this facility (megaliters/year)

117.05

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

117.05

Total water consumption at this facility (megaliters/year)

80.06

Comparison of total consumption with previous reporting year

Lower

Please explain

The water consumption decreased from 88.72 megaliters to 80.06 megaliters resulting in a 9.8% decrease

Facility reference number

Facility 4

Facility name (optional)

Philip Morris Polska

Country/Area & River basin

Poland

Wisla

Latitude

50.07172

Longitude

20.02136

Located in area with water stress

No

Total water withdrawals at this facility (megaliters/year)

178.79

Comparison of total withdrawals with previous reporting year

Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

178.79

Total water discharges at this facility (megaliters/year)

105.01

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

105.01

Total water consumption at this facility (megaliters/year)

73.78

Comparison of total consumption with previous reporting year

Lower

Please explain

The water consumption decreased from 77.96 megaliters to 73.78 megaliters resulting in a 5.4% decrease.

W5.1a

(W5.1a) For the facilities referenced in W5.1, what proportion of water accounting data has been externally verified?

Water withdrawals – total volumes

% verified

76-100

What standard and methodology was used?

100% of sites had EHS&S data verified by external party (SGS) according to ISO 14064-3, in the frame of the Green House Gas verification.

97.5% of our sites have been ISO 14001 certified in 2019, covering 75% of the facilities in W5.1, and the only site not ISO certified is certified according to AWS protocol (so 100% sites certified with one or the other standard).

Water withdrawals – volume by source

% verified

76-100

What standard and methodology was used?

100% of sites had EHS&S data verified by external party (SGS) according to ISO 14064-3, in the frame of the Green House Gas verification.

97.5% of our sites have been ISO 14001 certified in 2019, covering 75% of the facilities in W5.1, and the only site non ISO certified yet, it is certified according to AWS protocol

(so 100% sites certified with one or the other standard).

Water withdrawals – quality

% verified

76-100

What standard and methodology was used?

97.5% of our sites have been ISO 14001 & OHSAS 18001 certified in 2019, covering 75% of the facilities in W5.1, and the only site not ISO certified is certified according to AWS protocol (so 100% sites certified with one or the other standard).

Water discharges – total volumes

% verified

76-100

What standard and methodology was used?

100% of sites had EHS&S data verified by external party (SGS) according to ISO 14064-3, in the frame of the Green House Gas verification.

97.5% of our sites have been ISO 14001 certified in 2019, covering 75% of the facilities in W5.1, and the only site not ISO certified yet is certified according to AWS protocol (so 100% sites certified with one or the other standard).

Water discharges – volume by destination

% verified

76-100

What standard and methodology was used?

100% of sites had EHS&S data verified by external party (SGS) according to ISO 14064-3, in the frame of the Green House Gas verification.

97.5% of our sites have been ISO 14001 certified in 2019, covering 75% of the facilities in W5.1, and the only site not ISO certified yet is certified according to AWS protocol (so 100% sites certified with one or the other standard).

Water discharges – volume by treatment method

% verified

76-100

What standard and methodology was used?

100% of sites had EHS&S data verified by external party (SGS) according to ISO 14064-3, in the frame of the Green House Gas verification.

97.5% of our sites have been ISO 14001 certified in 2019, covering 75% of the facilities in W5.1, and the only site not ISO certified yet is certified according to AWS protocol (so 100% sites certified with one or the other standard).

Water discharge quality – quality by standard effluent parameters

% verified

76-100

What standard and methodology was used?

97.5% of our sites have been ISO 14001 certified in 2019, covering 75% of the facilities in W5.1, and the only cite not ISO certified is certified according to AWS protocol (so 100% sites certified with one or the other standard). We are constantly measuring our water discharge quality in all our affiliates and we are beyond local requirements.

Around 51% of our sites have been reviewed by local authorities. Going forward, we are planning to verify them externally as part of our verification process

Water discharge quality – temperature

% verified

76-100

What standard and methodology was used?

97.5% of our sites have been ISO 14001 certified in 2019, covering 75% of the facilities in W5.1, and the only site not ISO certified is certified according to AWS protocol (so 100% sites certified with one or the other standard). We are constantly measuring our water discharge quality in all our affiliates and we are beyond local requirements.

Around 51% of our sites have been reviewed by local authorities. Going forward, we are planning to verify them externally as part of our verification process

Water consumption – total volume

% verified

76-100

What standard and methodology was used?

100% of sites had EHS&S data verified by external party (SGS) according to ISO 14064-3, in the frame of the Green House Gas verification.

97.5% of our sites have been ISO 14001 certified in 2019, covering 75% of the facilities

in W5.1, and the only site not ISO certified yet is certified according to AWS protocol (so 100% sites certified with one or the other standard).

Water recycled/reused

% verified

76-100

What standard and methodology was used?

100% of sites had EHS&S data verified by external party (SGS) according to ISO 14064-3, in the frame of the Green House Gas verification.

97.5% of our sites have been ISO 14001 certified in 2019, covering 75% of the facilities in W5.1, and the only site not ISO certified yet is certified according to AWS protocol (so 100% sites certified with one or the other standard).

W6. Governance

W6.1

(W6.1) Does your organization have a water policy?

Yes, we have a documented water policy that is publicly available

W6.1a

(W6.1a) Select the options that best describe the scope and content of your water policy.

	Scope	Content	Please explain
Row 1	Company-wide	Description of business dependency on water Description of business impact on water Description of water-related performance standards for direct operations Description of water-related standards for procurement Reference to international standards and widely-recognized water initiatives Company water targets and goals	PMI is well aware of the importance of water for the company. Water is used in our manufacturing facilities, our agricultural supply chain, and in the production of other raw materials and supplies, such as paper, electronic devices, and packaging materials. For this reason, PMI has adopted a company-wide water policy, which effectively integrates all the relevant water dimensions of the business. PMI's water policy describes the company's business dependency on water, impacts, water-related performance standards for direct operations and suppliers (in line with PMI's GAP

	<p>Commitment to align with public policy initiatives, such as the SDGs</p> <p>Commitments beyond regulatory compliance</p> <p>Commitment to water-related innovation</p> <p>Commitment to stakeholder awareness and education</p> <p>Commitment to water stewardship and/or collective action</p> <p>Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace</p> <p>Commitment to safely managed Water, Sanitation and Hygiene (WASH) in local communities</p> <p>Acknowledgement of the human right to water and sanitation</p> <p>Recognition of environmental linkages, for example, due to climate change</p> <p>Other, please specify</p> <p>Roll-out anti-littering campaigns in cooperation with local stakeholders to reduce the amount of cigarette butts reaching waterways and the oceans.</p>	<p>and Sustainable Tobacco Program) and recognizes the linkages between water and other environmental issues such as climate change and biodiversity conservation. PMI uses international standards and widely recognized water initiatives, such as the AWS Standard.</p> <p>PMI is an active member of the AWS; following a successful pilot in Brazil, we are implementing the AWS Standard across all our factories, to promote a more sustainable use of water in the communities where we operate. PMI has active, time bounded water related targets and goals, and is committed to align its efforts with other public initiatives such as the SDGs. For example, SDG 6 is embedded in our Sustainability and Good Agricultural Practices (GAP) programs. PMI has additional commitments which go beyond regulatory compliance, including implementing innovative practices in water usage in agriculture, capacity building for farmers and local communities, providing access to water and sanitation, and taking collective water stewardship action. In our supply chain, water related procurement standards are set forth through our GAP program, our risk assessment process, Water Insights data collection, and Responsible Sourcing Principles. Beyond our efficiency targets in factories, we have outlined a roadmap for taking action with our suppliers and stakeholders, including watershed action and the development of tobacco seed varieties that are drought and flood tolerant.</p>
--	---	---

W6.2

(W6.2) Is there board level oversight of water-related issues within your organization?

Yes

W6.2a

(W6.2a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for water-related issues.

Position of individual	Please explain
Board-level committee	<p>PMI's Board of Directors (BoD) and its Committees are responsible to foster the long-term success of the company including setting broad corporate policies, strategic direction, and overseeing management, which is responsible for daily operations. The BoD considers that environmental, social and governance (ESG) factors, including climate change and water resources as relevant to the company's business and long-term success.</p> <p>As an example of a water-related decision making process in 2019, the BoD and its Committees approved the company's annual budget and received updates on the company's performance and targets against the budget throughout the year including those related to the achievement of sustainability and climate change targets, and water related matters. The annual budget factors in resources required to deploy water related initiatives to achieve our goals.</p> <p>Starting from 2018, the BoD mandated the Nominating and Corporate Governance Committee (NCGC) of the Board, composed by 6 BoD members, at the time of the publication of the 2020 proxy statement, to oversee PMI's sustainability strategies and advises the board on sustainability matters, including to provide recommendations to executive management on climate change-related issues, and a set of initiatives aiming to actively reduce unfavourable impacts of our business on the environment and water resources, as well as to increase resilience of our business toward water resources in terms of quality and availability.</p> <p>As an example of a water-related decision-making process, in 2019, the NCGC reviewed the 2018 Sustainability Report which represent the PMI's mainstream external communications on its sustainability performances including water resources. The Committee reflected on potential audiences for the engagement based on the information in the report and made a recommendation to the CSO for such engagement.</p>
Board-level committee	<p>The Audit Committee of the BoD, composed by 6 BoD members, at the time of the publication of the 2020 proxy statement, oversees the assessment and management of the company risks including to provide recommendations to executive management on those related to climate change, and water-related issues such as flood or drought, supply chain potential disruption, water scarcity, increased pressure on water resources and conflict with other water users affecting our direct operations and/or our supply chain, which may impact PMI's ability to operate.</p>

W6.2b

(W6.2b) Provide further details on the board's oversight of water-related issues.

Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain

<p>Row 1</p>	<p>Scheduled - some meetings</p>	<p>Monitoring implementation and performance Overseeing acquisitions and divestiture Overseeing major capital expenditures Providing employee incentives Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing and guiding corporate responsibility strategy Reviewing innovation/R&D priorities Setting performance objectives</p>	<p>The Board of Directors (BoD) oversees PMI’s full range of activities including establishing broad corporate policies, setting strategic direction, and overseeing management, which is responsible for the day-to-day operations of the company. Part of the BoD’s oversight is focus on management’s efforts to enhance shareholder value responsibly and sustainably. The BoD approves the company’s annual budget each year and receives updates on the company’s performance and targets against the budget throughout the year including those related to the achievement of sustainability and water targets. The BoD has established various standing Committees to assist with the performance of its responsibilities and is regularly informed on future plans, and significant issues affecting the business including the water related ones. The BoD meets typically 6 times per year with additional meetings held as necessary. The BoD believes that environmental factors, including those related to water resources, social, and governance (ESG) relevant to the company’s business are important to PMI’s long-term success. Those factors are part of the responsibility of the Board and considered in the evaluation of the annual performances of the company and its management. The BoD is advised on Sustainability matters, including water resources-related issues, by the Nominating and Corporate Governance Committee of the BoD, which oversees the Company’s sustainability strategies and performance, including water. The committee met 3 times in 2019. The BoD oversees the management of risks relating to the Company’s business. Risk oversight is conducted both by the Committees of the BoD as well as by the full BoD. Management has identified and prioritized a number of key enterprise risks. As part of the risk management process, the Company has established a Corporate Risk Governance Committee (“CRGC”) comprising the COO, the CFO, the Vice President and Controller, the Vice President Corporate Audit, and the Vice President and Chief Ethics & Compliance Officer. Management reports on these risks to the appropriate Committee and to the full Board. In</p>
------------------	--------------------------------------	---	---

			<p>2018, the Company conducted a full-scale reassessment of the strategic enterprise risk management program Ownership of each of the prioritized risks is assigned to a member of Company Management, and the oversight of their management is assigned to a particular Board Committee; the same ownership assignment continued in 2019 The Audit Committee of the BoD was tasked with overseeing the risk management of climate change as it could result in natural disasters, water scarcity, change in weather patterns, agricultural instability, which may impact PMI's ability to operate. The committee met 7 times in 2019. A member of the Company Management, the Senior Vice President Operations has been tasked with the responsibility to address the climate change risk, including water resources related risks.</p>
--	--	--	--

W6.3

(W6.3) Provide the highest management-level position(s) or committee(s) with responsibility for water-related issues (do not include the names of individuals).

Name of the position(s) and/or committee(s)

Chief Operating Officer (COO)

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

Quarterly

Please explain

The Chief Operating Officer (COO) is a member of PMI's Company Management (CM) and reports to the CEO. In 2019, the COO and SVP Operations were the highest management level responsible for water related issues including management of risks and opportunities; specifically, they are responsible for monitoring and reviewing PMI's objectives, risk assessment processes, business continuity strategies, and action plans related to climate change, incl. water related issues and physical risks. Together with the CM, they report on these issues to the Nominating and Corporate Governance Committee and Audit Committee of the BoD on a quarterly basis. The COO is a member of PMI's Corporate Risk Governance Committee which drives PMI's risk management process; in this role, he also reports on climate and water risks that can result in disruptions to PMI's value chain, to the Audit Committee and to the full Board as required through the year.

Name of the position(s) and/or committee(s)

Other C-Suite Officer, please specify
Senior Vice President, Operations

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

Quarterly

Please explain

The Senior Vice President, Operations (SVP Operations) member of the Company Management, is tasked with addressing climate change risk, including physical water risks, across all activities of the company, because it could result in natural disasters, water scarcity, and agricultural instability, which may impact PMI's ability to operate. Our SVP Operations is delegated with operational responsibility, including maintaining robust business resiliency, risk assessment processes, and strategies to support business continuity; he examines, monitors and reports to the Board, on water related issues ensuring the integration of risk assessment and management into long-range plan, objectives, budget and performance review processes. Effectively addressing these risks is critical to the achievement of PMI's strategic objectives and as such is considered during the annual Integrated Risk Assessment process. Management provided the Board with insights on the reassessment process thru 2019.

Name of the position(s) and/or committee(s)

Other, please specify
External Engagement Committee

Responsibility

Other, please specify
Overseeing PMI's sustainability work

Frequency of reporting to the board on water-related issues

Quarterly

Please explain

The External Engagement Committee (EEC) – composed of the company's CEO, COO, and President External Affairs and General Counsel, as well as senior leaders from various functions – has the mandate of for developing and deploying strategies and programs to propel better choices for consumers. Its mandate includes the oversight of PMI's sustainability work. PMI's sustainability materiality analysis was updated in 2019, re-prioritizing the most relevant sustainability topics for PMI, considering both internal and external perspectives. To help manage these topics from a global and sustainability perspective, the EEC

decided on Jan 9, 2020, to allocate Company Management ownership for each priority sustainability topic. The respective Company Management members are expected to organize from time to time topic specific “sustainability board” meetings to review progress and decide on next steps related to the sustainability topic for which they are accountable.

Name of the position(s) and/or committee(s)

Chief Sustainability Officer (CSO)

Responsibility

Other, please specify

Leading the integration of sustainability, including environmental topics, across PMI.

Frequency of reporting to the board on water-related issues

Annually

Please explain

The Chief Sustainability Officer (CSO), reports to the President External Affairs and General Counsel, a member of the Company Management. The CSO leads the integration of sustainability across our business, aiming to actively reduce unfavourable impacts of our business on the environment and water resources, as well as to increase resilience of our business toward water resources in terms of quality and availability. He heads PMI’s sustainability team. He is a member of the External Engagement Committee (EEC) and, at least once a year, updates the Nominating and Corporate Governance Committee of the Board on progress.

From an operational perspective, our Operations Sustainability and Corporate Sustainability functions coordinate the company’s climate change-related activities, including the water resources-related ones This helps ensure that our global strategies and programs can be implemented at the market level and that local realities are reflected in our global efforts.

W6.4

(W6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?

	Provide incentives for management of water-related issues	Comment
Row 1	Yes	

W6.4a

(W6.4a) What incentives are provided to C-suite employees or board members for the management of water-related issues (do not include the names of individuals)?

	Role(s) entitled to incentive	Performance indicator	Please explain
Monetary reward	Chief Executive Officer (CEO)	Reduction of water withdrawals Improvements in efficiency - direct operations Improvements in efficiency - supply chain Implementation of employee awareness campaign or training program Increased access to workplace WASH	<p>PMI's compensation and benefits program supports its business and financial objectives, including the achievement of sustainability efforts such as reduction of water withdrawals and water efficiency in direct and indirect operations. In its transformation towards a smoke-free future, PMI has defined strategic priorities, among which to build global societal support for RRP, where our operational sustainability efforts are embedded. Operating with excellence and protecting the environment are strategic pillars.</p> <p>The BoD considers that environmental, social and governance factors, including protecting the environment and water resources are relevant to the company's business and long-term success. These factors are part of the responsibility of the Board and are considered in its evaluation of the annual performance of the company and its management.</p> <p>Accordingly, progress against the strategic priorities is included in our overall performance rating which determines the cash bonuses for the management group and other eligible employees. Executive management covering sustainability, including EHS topics, are specifically appraised each year for performance against targets, including those relating to water resources and related issues. We discuss our executive compensation program in more detail in our proxy statement filed with the U.S. Securities and Exchange Commission (which includes annual performance against our water reduction targets).</p>
Non-monetary reward	Other, please specify Sustainability Managers, Employees	Reduction of water withdrawals Reduction in consumption volumes	Behavior change related indicator. Annually many affiliates continued to perform voluntary awareness and promotion campaigns/ programs in order to increase employees' active participation in sustainability and EHS programs and to make water stewardship part of the company's culture. Awards and

		<p>Improvements in efficiency - direct operations</p> <p>Improvements in efficiency - supply chain</p> <p>Implementation of employee awareness campaign or training program</p> <p>Supply chain engagement</p> <p>Increased access to workplace WASH</p> <p>Implementation of water-related community project</p>	<p>recognition for best practices form a core element of such campaigns Water reduction project; Operations employees also have the opportunity to earn awards for best practice initiatives in the areas of water consumption reduction and water efficiency. This forms part of our Operations “Lead, Lean and Learn” (3L) program which encourages innovation, continuous improvement and employee engagement. Reduction of water intensity, efficiency projects and targets, and increasing access to workplace WASH were selected as indicators of success as they are aligned with the company’s vision and they allow PMI to objectively quantify the progress of the company in the field of water and sustainability.</p>
--	--	---	--

W6.5

(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?

Yes, trade associations

Yes, other

W6.5a

(W6.5a) What processes do you have in place to ensure that all of your direct and indirect activities seeking to influence policy are consistent with your water policy/water commitments?

PMI operates within an overarching Code of Conduct, which we call our Guidebook for Success, and a set of internal policies. This Code of Conduct and policies cover our mandatory requirements and processes in relation to Sustainability including Environment, Health and Safety, which comprises our water strategy; corporate contributions; and interaction with government officials, amongst others. As part of these management controls, we conduct due diligence to ensure consistency with our Code and Principles, and to check potential compliance and reputational issues when joining trade associations. We belong to many carefully selected business and trade associations around the world. We work with these groups because they represent our industry and the larger business community in policy discussions on issues where we have a common interest or objective. Our support to these organizations and groups complies with applicable laws and our own principles. We routinely evaluate our participation to ensure that the groups’ objectives align with the long-term interests of PMI and its shareholders, and that their activities continue to reflect PMI’s values and standards of conduct. There are times when we may not agree with certain positions adopted

by the organizations we support. In these instances, we may choose to withdraw our participation or support. PMI also could withdraw its support, or participation if inconsistencies with its Code of Conduct or policies are discovered.

W6.6

(W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?

No, but we plan to do so in the next two years

W7. Business strategy

W7.1

(W7.1) Are water-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	16-20	PMI's long-term business objective is to deliver a smoke-free future, by replacing cigarettes with smoke-free alternatives. Part of this transformation is the development of a more strategic and forward-looking corporate sustainability strategy with RRP's at its core, while integrating other material social and environmental topics such as water stewardship. Water issues are integrated in our long-term business objectives, mainly through the identification and management of water risks and opportunities such as droughts, floods and cyclones which can directly impact PMI's value chain. We have also set water efficiency targets in manufacturing and, in line with our strategy, we will develop water reduction targets for RRP's. Our Sustainability Team reviews annually the long-term business goals and their connection with water and other environmental risks and opportunities, which determine future management actions. Since the physical risks of climate change which include disruptions to water availability and security, might significantly impact our business and supply chains, we conducted climate risks assessments considering 2030 and 2040 scenarios since that is when we start seeing climate trends shift. This time horizon was selected as it

			is also aligned with our risk planning and climate change Science Base Targets, allowing us to implement actionable goals with tangible long-term effects that impact our business (16-20 years vs. 50 years).
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	16-20	Driving world-class sustainability programs to build a resilient value chain and answer our stakeholders' concerns is one of our core strategies to deliver a smoke-free future. Our materiality assessment is the backbone of our sustainability strategy development; water stewardship is part of our material environment topics and is integrated in our long term objectives. Our strategy is aligned with our annual Long Range Planning process and includes water issues such as water efficiency in manufacturing and water use in agriculture to increase resiliency of our business. Examples are the development of water targets and projects in our tobacco supply chain; the AWS certification of all our factories by 2025 and the investment in technologies to reduce, reuse and recycle water in manufacturing. In 2018, the Board of Directors was formally mandated to oversee sustainability objectives, including water related issues, and management's efforts to enhance shareholder value responsibly and sustainably, as this is important for our company's long-term success. With the ongoing challenge of water security, we find it important to look further into the future by conducting climate risks assessments which look out to time horizon 2030 and 2040 for two reasons, 1) it is when we start seeing climate trends shift, 2) it is aligned with our risk planning and climate change goals, enabling us to set actionable goals with tangible long-term effects for our business (16-20 years vs. 50 years).
Financial planning	Yes, water-related issues are integrated	16-20	As PMI is working towards achieving its sustainability goals, OPEX and CAPEX for water related issues are included in our financial planning; e.g. PMI has planned financial resources to 1) implement technologies in manufacturing to minimize the use of water; 2) implement its long term GAP program in its tobacco supply chain to achieve sustainable tobacco production, incl. activities with tobacco suppliers to address water related risks, among others. These activities focus on improvement of crop management practices, incl. investment in more sustainable irrigation practices, water and soil conservation plans, and development of

			drought and flood tolerant varieties. 3) Conduct water risk assessment, for which PMI annually allocates a budget, and the results are used to inform the company's business and sourcing strategies in the mid and long term to prevent risks of supply disruption and/or potential increase in procurement cost. PMI's risk assessment looks out to 2030 and 2040 as this is when the majority of risks are expected to materialize in the absence of successful mitigation measures. The indicated time horizon was selected as it is aligned with our risk planning and climate change goals, allowing us to set actionable goals with tangible long-term effects for our business.
--	--	--	---

W7.2

(W7.2) What is the trend in your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

Row 1

Water-related CAPEX (+/- % change)

-18

Anticipated forward trend for CAPEX (+/- % change)

-43

Water-related OPEX (+/- % change)

-11

Anticipated forward trend for OPEX (+/- % change)

-10

Please explain

CAPEX: In 2019 we invested in technologies to reduce, reuse and recycle water in 15 factories, decreasing our expenditure by 18% vs 2018. 2018 and 2019 projects are under validation prior further expenditure can be allocated, reason of the decrease in 2019. If they prove efficient, we will deploy them in 2021 and subsequent years. Due to that we expect a reduction in investment of 43% in 2020 and potentially an increase in 2021 when we will deploy investments focusing in our RRP factories.

OPEX: a net decrease of 11% in our OPEX driven by around 80% by improvements done in our RRP facilities in Italy and the Netherlands. This decrease is the fruit of our expenditure in 2018, aiming to reduce water withdrawals and discharge, which are the main drivers of our OPEX water related costs. In 2018 we had anticipated a 10% decrease, that we slightly exceeded in 2019. In 2020 we expect this cost to reduce 10% more. Water-related OPEX is not significant to our business (less than 0.1%)

W7.3

(W7.3) Does your organization use climate-related scenario analysis to inform its business strategy?

	Use of climate-related scenario analysis	Comment
Row 1	Yes	As our business relies on agricultural crops, physical risks are the primary driver for us. We conducted a physical climate risk analysis of our direct operations and our leaf suppliers growing regions using IPCC physical risk scenarios. The climate risk analysis evaluated impacts from the reasonable worst case (RCP 8.5), a prudent application when assessing these risks. Additionally, in 2018 PMI conducted a climate change risk assessment in line with TCFD recommendations. In it PMI identified risks and opportunities for its business under a reference scenario (exploring a decarbonization approach under the existing climate and energy policies) and a 2 degree scenario (aligned with an average global temperature increase below 2 degrees). The assessment considered the importance of water resources for PMI's direct and indirect operations and looked into several water elements including projected prices of water and their implications, changes in water supply, water stress and others.

W7.3a

(W7.3a) Has your organization identified any water-related outcomes from your climate-related scenario analysis?

Yes

W7.3b

(W7.3b) What water-related outcomes were identified from the use of climate-related scenario analysis, and what was your organization's response?

	Climate-related scenarios and models applied	Description of possible water-related outcomes	Company response to possible water-related outcomes
Row 1	Other, please specify RCP 8.5	Our evaluation of water security impacts uses the IPCC RCP 8.5 scenario which allows us to model and better understand the potential worst-case impacts across our	We continue to support and invest in growing practices that enable the tobacco crop to be resilient to the changing water scenarios. Through our engagement with our tobacco supply

		<p>operations and value chain. The scenario analysis uses various metrics including crop loss, business disruption to contextualize risks to our operations in the future. Some of the challenges identified include increased risk of drought and cyclones in some of our tobacco growing regions as well as some of our facilities. For example, in the Philippines, based on our scenario analysis, there is an increasing risk of crop loss from droughts, with losses estimated greater than 10 percent, and cyclones. Our new RRP facilities in Italy and our factory Poland are likely be affected by increased water stress and drought, and we anticipate potentially increasing downtime and temporary geographical shift of operations in some cases.</p>	<p>chain stakeholders we continuously assess water related indicators with our global and local water risk assessment methodologies, to have the most updated scenario and to better drive responses on water management through our GAP program with the implementation of best practices and tailored interventions. Within our Water Stewardship program in Leaf we are developing quantifiable targets with a timeline to 2030 focusing on reduction and replenishment indicators to mitigate water related issues and trigger generation of positive impact in the geographies we source tobacco from along with increased resiliency for origins like the Philippines where extreme weather events are likely to continue to pose a risk for tobacco production.</p> <p>In our manufacturing facilities, water is not a major input to conventional product manufacturing. We continue to reduce water use in our facilities through improvement in water efficiency by implementing new process designs, conservation, and reusing or recycling water where possible. Our water related initiatives implementation has been intensified since 2018, to anticipate shortages in water availability, including those in Italy and Poland. The expected full implementation, including the evaluation of pilot projects and expansion is forecasted by 2025.</p>
--	--	--	--

W7.4

(W7.4) Does your company use an internal price on water?

Row 1

Does your company use an internal price on water?

No, but we are currently exploring water valuation practices

Please explain

As member of Value Balancing Alliance (VBA) we explore the Triple bottom line accounting concept which focus on the balance between environmental, social, and economic issues. Water is a relevant topic included in the VBA's valuation metrics, and we expect through the participation to this working group to assess the relevance to use an internal price on water. Today, as well as many other organizations, we evaluate performance in a broader perspective to create greater business value using reports and indicators based on different sources such as Global Reporting Initiative (GRI) and SAM CSA.

We joined the Alliance for Water Stewardship (AWS) in 2017 and by the end of 2019 we certified 6 factories. We plan to certify by 2020 eleven factories which ranked highest in our previous water risk assessment and to extend the AWS certification to the rest of our factories by 2025. As PMI moves forward on its certification targets we will explore water valuation practices in more detail.

W8. Targets

W8.1

(W8.1) Describe your approach to setting and monitoring water-related targets and/or goals.

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals Business level specific targets and/or goals Site/facility specific targets and/or goals	Targets are monitored at the corporate level Goals are monitored at the corporate level	PMI is committed to be a good water steward by minimizing water use and effluent discharge in our factories; assessing water risks where we operate and working with stakeholders in shared watersheds towards the five water stewardship outcomes (good water governance, sustainable water balance, good water quality, habitat protection and WASH); and implementing good agricultural practices in our tobacco supply chain. We understand that setting company-wide science-based targets for GHG carbon reductions, doesn't cover water withdrawal on which consumption, and pollution typically have an impact only in the basin in which they occur. That's why our approach to reduce PMI's impact on water resources is focused on reducing water intensity per unit manufactured (cigarette or heated tobacco unit) and to ensure that we apply water stewardship principles. We work to understand the water risks in our operations, agricultural and non- agricultural supply chain and then create specific targets to mitigate any risks. An example is our target to

			certify all our top 11 highest water stressed factories by end 2020 against the Alliance for Water Stewardship standard, with all other factories targeted by 2025.
--	--	--	---

W8.1a

(W8.1a) Provide details of your water targets that are monitored at the corporate level, and the progress made.

Target reference number

Target 1

Category of target

Water withdrawals

Level

Company-wide

Primary motivation

Water stewardship

Description of target

In 2015, we exceeded our goal to reduce by 20% our water withdrawals in all our manufacturing facilities from a 2010 baseline. Since 2016 we have focused on future water demands that PMI will face from transitioning to RRP and the company set an interim company-wide target to annually reduce total water withdrawals by 1%. This target is measured per unit of production (sold cigarette equivalent). PMI set this target to focus on achieving a better understanding of its future operational water demands, as well as to achieve water security by identifying and reducing water demand in key parts of the manufacturing process. As we convert more factories to produce RRP, we will be resetting our target baseline to reflect the new production process and relative difference in water withdrawals. PMI water reduction targets will continue to focus in reducing the company's overall water withdrawals at the company wide level.

Quantitative metric

Other, please specify
% reduction per unit of product sold

Baseline year

2010

Start year

2018

Target year

2019

% of target achieved

100

Please explain

In 2019, we improved our water intensity and we exceeded our target of annual reduction of 1%, by decreasing our intensity withdrawals by 6% vs 2018.

Despite the increase of production of our new RRP which requires approximately four to five times more water per unit of product than conventional cigarettes, we managed to reduced withdrawals by improving water efficiency throughout that process and implementing new technologies to recycle and reuse water, and by using rainwater harvesting where feasible, with a view to minimize water discharge.

Target reference number

Target 2

Category of target

Water withdrawals

Level

Company-wide

Primary motivation

Water stewardship

Description of target

In 2015, we exceeded our goal to reduce by 20% our water withdrawals in all our manufacturing facilities from a 2010 baseline. We focus on future water demands that PMI will face from transitioning to RRP and, the company set an interim target to annually reduce total water withdrawals by 1%, from 2016 to 2019. PMI set this target to focus on achieving a better understanding of its future water demands, as well as to achieve water security by identifying and reducing water withdrawals from new manufacturing processes. As we convert more factories to produce RRP, we will be resetting our target baseline level to reflect the new production process and relative difference in water withdrawals.

Quantitative metric

% reduction in total water withdrawals

Baseline year

2010

Start year

2018

Target year

2019

% of target achieved

100

Please explain

In 2019, we were able to improve our water withdrawn average volumes from 2010 baseline of 4,998,953 m³ to 4,009,062 m³, decreasing by 8.3% vs 2018. The result has been achieved thanks to our efforts to improve water efficiency through implementing new technologies to recycle and reuse water, and by using rainwater harvesting where feasible, with a view to minimum water discharge partially compensated by the increase of production of our new RRP which requires approximately four to five times more water per unit of product than conventional cigarettes.

Target reference number

Target 3

Category of target

Community engagement

Level

Site/facility

Primary motivation

Risk mitigation

Description of target

The AWS Standard is a globally applicable framework for major water users to understand their water use and impacts as well as to work collaboratively for sustainable water management in a catchment context. PMI uses this Standard to engage local communities and other users in the catchment area such as local authorities, farmers and others on different water issues such as good water governance, sustainable water balance, WASH, good water quality and others. Achieving an effective water management at the catchment level will allow PMI to avoid water conflicts and achieve water security PMI created a roadmap to assess and certify its 11 manufacturing facilities with the highest water risks under the Alliance for Water Stewardship by 2020. After our first pilot in Brazil we plan to extend our efforts globally by 2025 and hope this commitment will inspire other companies in our value chain and beyond to take similar steps on water stewardship.

Quantitative metric

Other, please specify

Number of sites certified by AWS

Baseline year

2018

Start year

2018

Target year

2025

% of target achieved

15

Please explain

We joined the Alliance for Water Stewardship (AWS) in 2017, a leading organization dedicated to better managing water within the local watersheds. We successfully piloted the adoption of the AWS Standard in our factory in Brazil and developed a toolbox for wider implementation. In March 2018, our factory became the first factory to be certified by AWS in the country. Based on the results and learnings from this pilot, we started to roll out the AWS Standard globally and by the end of 2019 we had 6 factories certified to the AWS standard. As a priority, we plan to certify by 2020 the eleven factories which ranked highest in our previous risk assessment and to extend to the rest of our factories by 2025, aligning with our ISO 14001 scope: all factories above 3 million cigarette equivalent annual production volume.

Target reference number

Target 4

Category of target

Water pollution reduction

Level

Other, please specify
Tobacco supply chain

Primary motivation

Reduced environmental impact

Description of target

We are aware that the use of fertilizers and pesticides in our agricultural supply chain can cause water pollution, which would damage natural ecosystems and affect the company's operations, and other water users. To prevent negative impacts on water ecosystems, maintain water quality and achieve long term water security PMI has set targets to eliminate WHO TOX1 pesticides by 2018, and other Highly Hazardous Pesticides (HHPs) as defined by FAO/WHO guidelines by 2020. PMI set these targets following the FAO and WHO recommendations on the classification of highly hazardous pesticides. PMI engages its tobacco supply chain through its Good Agricultural Practices program, and monitors progress on this target annually at the supplier level.

Quantitative metric

% reduction in concentration of pollutants

Baseline year

2015

Start year

2015

Target year

2020

% of target achieved

92

Please explain

PMI is testing 100% of its tobacco purchased for pesticides residues. PMI has made important steps towards the elimination of WHO TOX1 and other HHPs. In 2019, 100% of our tobacco purchase was free of WHO TOX1 and 92% was free from HHPs.

Target reference number

Target 5

Category of target

Water use efficiency

Level

Company-wide

Primary motivation

Water stewardship

Description of target

In 2015, we exceeded our goal to reduce 20% our water withdrawals in all our manufacturing facilities from a 2010 baseline. We focus on future water demands that PMI will face from transitioning to RRP, and we set a company-wide target to achieve a water ratio of 3.1 m3 of water withdrawn per million cigarettes equivalent produced by 2022, with an interim target of 4.4 m3 of water withdrawn per million cigarettes equivalent produced , by 2020 . Our baseline remains 2010 with 5.35. m3 of water withdrawn per million cigarettes equivalent produced. PMI set this target to focus on mitigating its future operational water demands increase due to RRP production, as well as to increase resiliency with regard to water related risks by identifying and reducing water demand in key parts of the manufacturing process. As we convert more factories to produce RRP, we will be resetting our target baseline level to reflect the new production process and relative difference in water withdrawals.

Quantitative metric

Other, please specify

Water ratio (water withdrawn in m3 per million cigarettes equivalent produced)

Baseline year

2010

Start year

2019

Target year

2022

% of target achieved

27

Please explain

This is a new target: from 2019 onwards, water intensity is measured in m³ per million cigarettes equivalent produced. Despite the increase of production of our new RRP which requires approximately four to five times more water per unit of product than conventional cigarettes, we managed to reduced withdrawals by improving water efficiency throughout the process and implementing new technologies to recycle and reuse water, and by using rainwater harvesting where feasible, with a view to minimize water discharge. In the first year (2019) we managed to follow the reduction trajectory, and we are on track to achieve the target in 2022.

W8.1b

(W8.1b) Provide details of your water goal(s) that are monitored at the corporate level and the progress made.

Goal

Engagement with suppliers to help them improve water stewardship

Level

Basin level

Motivation

Water stewardship

Description of goal

The AWS Standard is a globally applicable framework for major water users to understand their water use and impacts as well as to work collaboratively for sustainable water management in a catchment context. PMI uses this Standard to engage suppliers and other users in the catchment area such as local authorities, local communities and others on different water issues such as good water governance, sustainable water balance, WASH, good water quality and others. It is key for PMI to achieve an effective water management at the catchment level as it will allow PMI to avoid water conflicts and achieve water security objectives.

As part of the local Alliance for Water Stewardship roll out in our factories, we are engaging local suppliers (tobacco suppliers, farmers or direct material suppliers) to promote the standard and exchange best practices. By 2020, we plan to have 11 of our sites AWS certified and all our major sites by 2025. This is an important goal because it

promulgates the use of the AWS international standard for sustainable water use within the organization and beyond. This reinforces our commitment to a rigorous and data driven approach to evaluating water. Our AWS team and our employees on site are fully engaged to ensure that our factory meets the AWS standard, including engaging with local authorities, the farming community and civil society groups.

Baseline year

2018

Start year

2018

End year

2025

Progress

In 2017, we started to pilot the Alliance for Water Stewardship (AWS) Standard, successfully certifying our site in Brazil in 2018. Furthermore throughout 2019, we expanded the certification versus the AWS Standard at a further five sites – in Italy, Portugal, Indonesia, Russia, and Turkey, as part of the program to certify all factories by 2025. PMI uses the number of certified sites as indicator of success. The progress against the target is measured by the number of sites successfully AWS certified and in the process of being AWS certified, being in line with our target. PMI considers 11 factories certified by 2020 and the full adoption of the standard in the remaining factories by 2025 as the threshold of success. Through the AWS certification process, we engaged actively with more than one supplier per site in the catchment area including water suppliers, tobacco farmers/suppliers or paper suppliers, in line with our goal.

Goal

Promotion of sustainable agriculture practices

Level

Basin level

Motivation

Risk mitigation

Description of goal

Water scarcity is a global issue linked with climate change, which could have a direct impact on PMI's agricultural supply chains. PMI has identified that more than 90% of its water footprint can be linked to its supply chain (tobacco suppliers alone are responsible for 51% of the water footprint), where suppliers use it as a key element for the production of raw materials. Seen as PMI's business security is wholly dependent upon its raw materials in the supply chain, promoting sustainable agricultural practices that mitigate water risks is key for the company's long-term water and business security. PMI is committed to achieving a sustainable management of water resources at the basin

level. Thus, PMI is working with all its agricultural suppliers through its Good Agricultural Practices (GAP) program. As part of GAP, PMI engages suppliers to develop and implement water conservation plans that achieve rational use of water resources and incorporate best available irrigation practices at the local level, including efficient irrigation systems such as drip irrigation, timing, and amount of water distributed, based on water use efficiency measurements. PMI rolled out GAP in 2002 and monitors its success on an annual basis.

Baseline year

2007

Start year

2007

End year

2030

Progress

PMI measures progress for this goal on an annual basis, through the use of water related indicators as part of the Good Agricultural Practices (GAP) program. The set of indicators, as well as the specific goals vary within basins, as production conditions are significantly different within PMI’s agricultural supply chain. Some of the measured indicators include reductions in water withdrawal rates, number of farmers adopting drip irrigation (or other smart irrigation practices) and other similar metrics. An example of this is the monitoring of farmers’ progress on the adoption of sustainable water management practices. PMI monitors adoption rates of drip irrigation practices for tobacco production and, we estimate that our engagement has resulted in 98% of the area used to produce the tobacco purchased in 2019 from the Verona region (Italy) applying drip irrigation systems. PMI aims to continue engaging with local farmers in the region to achieve a 100% adoption of drip irrigation in Verona province by 2030 , reaching our threshold of success.

W9. Verification

W9.1

(W9.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1a)?

Yes

W9.1a

(W9.1a) Which data points within your CDP disclosure have been verified, and which standards were used?

Disclosure module	Data verified	Verification standard	Please explain
-------------------	---------------	-----------------------	----------------

<p>W1 Current state</p>	<p>The STP process includes: • Annual self-assessments completed by tobacco suppliers (reviewed by AB Sustain); • On-site audits conducted by AB Sustain to a sample of contracted farmers; and • Comprehensive review of tobacco suppliers' policies, procedures, and documentation; and monitoring and proof demonstrating the level of STP/GAP implementation.</p>	<p>Other, please specify</p> <p>Sustainable Tobacco Production verification by AB Sustain</p>	<p>GAP has been in place since 2002, and since 2016 we have been assessing conformity of tobacco suppliers and farmers with our GAP standards through the industry-wide Sustainable Tobacco Program (STP) managed by AB Sustain, an independent supply chain management specialist. One of the outcomes of the assessment is an independent performance rating against all STP criteria. In order to focus on developing a new STP 2.0 program, the industry did not run collective assessments with AB Sustain in 2019, and it is expected to resume them in the coming years.</p> <p>100% of PMI sourcing countries had been audited on a 3-year cycle from 2016 to 2018 and, in 2019, PMI continued to assess conformity through annual self-assessments by all our suppliers.</p>
<p>W3 Procedures</p>	<p>The STP process includes: • Annual self-assessments completed by tobacco suppliers (reviewed by AB Sustain); • On-site audits conducted by AB Sustain to a sample of contracted farmers; and • Comprehensive review of tobacco suppliers' policies, procedures, and documentation; and monitoring and proof demonstrating the level of STP/GAP implementation.</p>	<p>Other, please specify</p> <p>Sustainable Tobacco Production verification by AB Sustain</p>	<p>GAP has been in place since 2002, and since 2016 we have been assessing conformity of tobacco suppliers and farmers with our GAP standards through the industry-wide Sustainable Tobacco Program (STP) managed by AB Sustain, an independent supply chain management specialist. One of the outcomes of the assessment is an independent performance rating against all STP criteria. In order to focus on developing a new STP 2.0 program, the industry did not run collective assessments with AB Sustain in</p>

			<p>2019, and it is expected to resume them in the coming years.</p> <p>100% of PMI sourcing countries had been audited on a 3-year cycle from 2016 to 2018 and, in 2019, PMI continued to assess conformity through annual self-assessments by all our suppliers.</p>
W4 Risks and opportunities	<p>The STP process includes: • Annual self-assessments completed by tobacco suppliers (reviewed by AB Sustain); • On-site audits conducted by AB Sustain to a sample of contracted farmers; and • Comprehensive review of tobacco suppliers' policies, procedures, and documentation; and monitoring and proof demonstrating the level of STP/GAP implementation.</p>	<p>Other, please specify</p> <p>Sustainable Tobacco Production verification by AB Sustain</p>	<p>GAP has been in place since 2002, and since 2016 we have been assessing conformity of tobacco suppliers and farmers with our GAP standards through the industry-wide Sustainable Tobacco Program (STP) managed by AB Sustain, an independent supply chain management specialist. One of the outcomes of the assessment is an independent performance rating against all STP criteria. In order to focus on developing a new STP 2.0 program, the industry did not run collective assessments with AB Sustain in 2019, and it is expected to resume them in the coming years.</p> <p>100% of PMI sourcing countries had been audited on a 3-year cycle from 2016 to 2018 and in 2019 PMI continued to assess conformity through annual self-assessments by all our suppliers.</p>
W7 Strategy	<p>The STP process includes: • Annual self-assessments completed by tobacco suppliers (reviewed by AB Sustain); • On-site audits conducted by AB Sustain to a sample of contracted</p>	<p>Other, please specify</p> <p>Sustainable Tobacco Production verification by AB Sustain</p>	<p>GAP has been in place since 2002, and since 2016 we have been assessing conformity of tobacco suppliers and farmers with our GAP standards through the industry-wide Sustainable</p>

	farmers; and • Comprehensive review of tobacco suppliers' policies, procedures, and documentation; and monitoring and proof demonstrating the level of STP/GAP implementation.		Tobacco Program (STP) managed by AB Sustain, an independent supply chain management specialist. One of the outcomes of the assessment is an independent performance rating against all STP criteria. In order to focus on developing a new STP 2.0 program, the industry did not run collective assessments with AB Sustain in 2019, and it is expected to resume them in the coming years. 100% of PMI sourcing countries had been audited on a 3-year cycle from 2016 to 2018 and in 2019 PMI continued to assess conformity through annual self-assessments by all our suppliers.
W8 Targets	The STP process includes: • Annual self-assessments completed by tobacco suppliers (reviewed by AB Sustain); • On-site audits conducted by AB Sustain to a sample of contracted farmers; and • Comprehensive review of tobacco suppliers' policies, procedures, and documentation; and monitoring and proof demonstrating the level of STP/GAP implementation.	Other, please specify Sustainable Tobacco Production verification by AB Sustain	GAP has been in place since 2002, and since 2016 we have been assessing conformity of tobacco suppliers and farmers with our GAP standards through the industry-wide Sustainable Tobacco Program (STP) managed by AB Sustain, an independent supply chain management specialist. One of the outcomes of the assessment is an independent performance rating against all STP criteria. In order to focus on developing a new STP 2.0 program, the industry did not run collective assessments with AB Sustain in 2019, and it is expected to resume them in the coming years. 100% of PMI sourcing countries had been audited on a 3-year cycle from 2016 to 2018 and in

			2019 PMI continued to assess conformity through annual self-assessments by all our suppliers.
W1 Current state	Water consumption volumes from manufacturing facilities, including water in and water out.	Other, please specify ISO 14064-3	In the frame of the Green House Gas verification, carried out by SGS, we also verified our manufacturing centers water volumes data, both in and out, and this is clearly described in the verification statement issued by SGS.
W8 Targets	Water consumption volumes from manufacturing facilities, including water in and water out.	Other, please specify ISO 14064-3	In the frame of the Green House Gas verification, carried out by SGS, we also verified our manufacturing centers water volumes data, both in and out, and this is clearly described in the verification statement issued by SGS.
W8 Targets	Manufacturing facilities AWS certification.	Alliance for Water Stewardship certification	We have become a member of the Alliance for Water Stewardship to better understand how to conserve the watersheds where we operate, and six factories have been already certified against the AWS Standard by the end of 2019, by SGS. We have committed to certify at least 11 facilities by 2020 and all facilities by 2025.

W10. Sign off

W-FI

(W-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

W10.1

(W10.1) Provide details for the person that has signed off (approved) your CDP water response.

	Job title	Corresponding job category
Row 1	Chief Executive Officer (CEO)	Chief Executive Officer (CEO)

W10.2

(W10.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate's Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].

Yes

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission
I am submitting my response	Investors	Public

Please confirm below

I have read and accept the applicable Terms